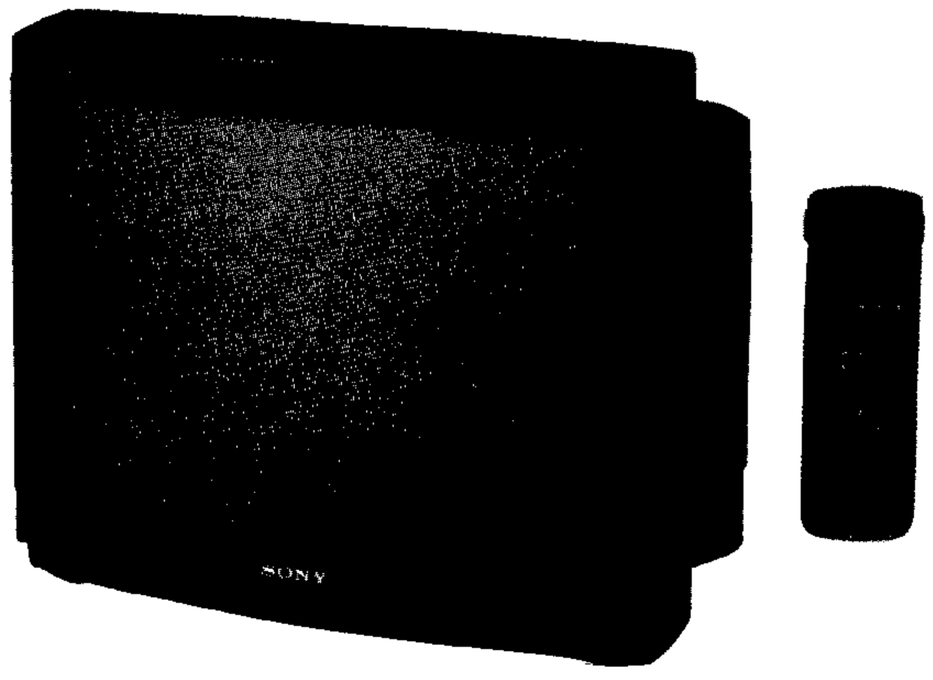
RM-816

SERVICE MANUAL

AEP Model

Chassis No. SCC- E18H-A



AE-1C CHASSIS

MODELS OF THE SAME SERIES	
KV-A2911D	
KV-A2111D/A2511D	

SPECIFICATIONS

Television system
Color system B/G/H
Stereo system PAL, SECAM, NTSC3.58, NTSC4.43
Channel coverage GERMAN stereo
Picture tube VHF: E1-E10.
Black Trinitron tube
Approx. 72.4 cm
(Approx. 68 cm picture measured diagonally)
110 ° -degree deflection

Inputs
1 21-pin connector:
CENELEC standard including RGB input.
2 21-pin connector:
including S video input
Flont : 3 Audio and video input jacks:
phono jack.
Including S Video input
Y: 1Vp-p±3dB 75ohm
C: 0.3Vp-p±3dB 75ohm

Outputs
21-pin connector: CENELEC standard
Headphones jack: stereo minijack
External speaker terminals: 2-pin DIN
Audio output jacks: phono jack (output dependent upon TV settings)

Sound output 30 W + 30 W
Power consumption 114Wh
Dimensions incl.speakers Approx. 761×568×512 mm (w/h/d)
Weight incl.speakers Approx. 55kg

【RM-816】
Remote control system infrared control
Power requirements 3V dc
2 batteries IEC designation
R6 (size AA)
Dimentions Approx. 75×221×23mm(w/h/d)
Weight Approx. 230g (including batters)
Accessories supplied IEC designation R6 batteries (2)

Supplied accessories RM-816 Remote Commander (1)
IEC designation R6 batteries (2)

Design and specifications are subject to change without notice.

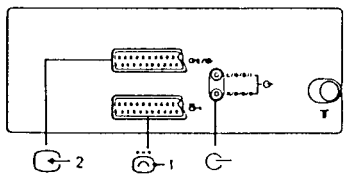
MICROFILM

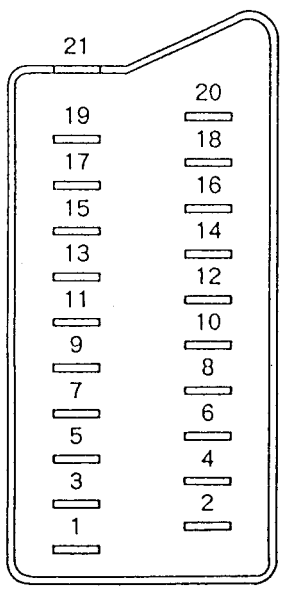
MC-Service

TRINITRON® COLOR TV

SONY®

21 pin connector (1, 2)





Pin No	1	2	Signal	Signal level
1	O	O	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
2	O	O	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
3	O	O	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
4	O	O	Ground (audio)	
5	O	O	Ground (blue)	
6	O	O	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
7	O	●	Blue input	0.7V±3dB, 75ohms, positive
8	O	O	Function select (AV control)	High state (9.5 – 12 V) : Part mode Low state (0 – 2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF
9	O	O	Ground (green)	
10	O	O	Open	
11	O	●	Green	Green signal : 0.7V±3dB, 75ohms, positve
12	O	O	Open	
13	O	O	Ground (red)	
14	O	O	Ground (blanking)	
15	O	–	Red input	0.7V±3dB, 75ohms, positive
	–	O	(S signal) croma input	0.3V±3dB, 75ohms, posltive
16	O	●	Blanking input (Ys signal)	High state (1 – 3 V) Low state (0 – 0.4 V) Input impedance : 75ohmes
17	O	O	Ground (video output)	
18	O	O	Ground (video input)	
19	O	O	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
20	O	–	Video input	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
	–	O	Video Input/Y (S signal)	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
21	O	O	Common ground (plug, shield)	

O connected ● unconnected (open) * at 20 Hz – 20 kHz

4 pin connector (S)

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75ohm, positive Sync 0.3V $^{+3}_{-10}$ dB
4	C (S signal) input	0.3V ± 3dB 75ohm positive

TABLE OF CONTENTS

Section	Title	Page
1. GENERAL		
1-1.	Turning the TV Unit On and Off	4
1-2.	TV Channel Presetting	4
1-3.	Basic Functions	6
1-4.	Special Functions	7
1-5.	Use of the Teletext Service	7
1-6.	Connections and Optional Functions	9
1-7.	General Information	10
2. DISASSEMBLY		
2-1.	Rear Cover Removal	11
2-2.	Chassis Assembly Removal	11
2-3.	A and J1 Boards Removal	11
2-4.	B1 Board Removal	12
2-5.	Service Position	12
2-6.	Picture Tube Removal	13
3. SET-UP ADJUSTMENTS		
3-1.	Beam Landing	14
3-2.	Convergence	15
3-3.	Focus	17
3-4.	Screen (G2) and White Balance	17
4. CIRCUIT ADJUSTMENTS		
4-1.	A Board Adjustments	18
4-2.	B1 Board Adjustments	18
4-3.	D Board Adjustments	19
4-4.	J1 Board Adjustments	20
4-5.	V Board Adjustment	20
4-6.	Secondary Adjustments	21
5. DIAGRAMS		
5-1.	Block Diagram	23
5-2.	Circuit Boards Location	27
5-3.	Schematic Diagrams and Printed Wiring Boards	27
5-4.	Semicoonductors	59
6. EXPLODED VIEWS		
6-1.	Chassis	61
6-2.	Picture Tube	62
7. ELECTRICAL PARTS LIST		63

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

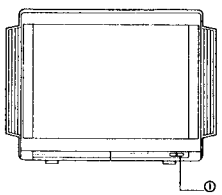
CAUTION

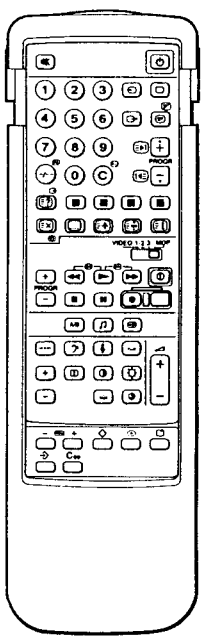
SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SECTION 1
GENERAL

1-1. TURNING THE TV UNIT ON AND OFF

After you have completed the basic preparation your TV is ready to be connected to the mains power supply (220/240V-, 50Hz).





Turning the TV unit ON

Action	Result
1 Press ⏻ on the TV.	The TV will turn on. **Note:** If the screen remains blank, the TV may be in the standby mode. Press ▢ to switch it on.

Turning the TV unit OFF

A Temporarily	
Press ⏻ to enter the standby mode.	The TV will be in the standby mode. To return to the TV mode press ▢.
B Completely	
Press ⏻ on the TV set.	The TV will be turned off.

1-2. TV CHANNEL PRESETTING

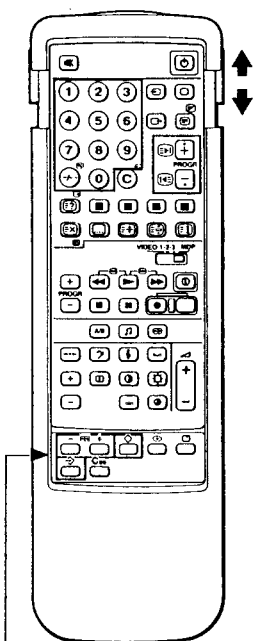
After installing the TV set, TV channels must be preset.

TV broadcasting stations broadcast their programmes on certain fixed frequencies (channels). In order to receive these programmes it is necessary to search for the relevant broadcasting station and to set record it as a channel. The "programme number" is the number that the user decides to associate with a certain channel.

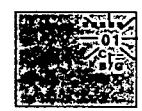
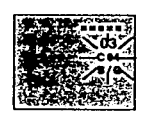
For channel settings there are 60 positions available in the memory. In this way all stations broadcasting within the user's country can be received and recorded as a channel.

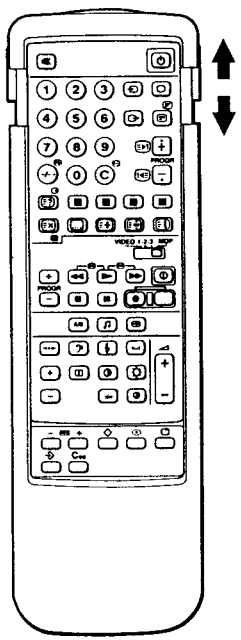
TV channels automatic presetting

If you are unfamiliar with the transmission frequency of the channels you wish to preset, refer to the section "TV channels automatic presetting". However, if you want to tune them using the frequency of each channel, go to the section "Direct TV channel setting".
To select a button on the "complete" side, take out the remote control unit from its case to reveal the preset buttons, as shown in the illustration.



Nota: Utilizzate i tasti indicati nell' illustrazione solo quando preselezionate canali.

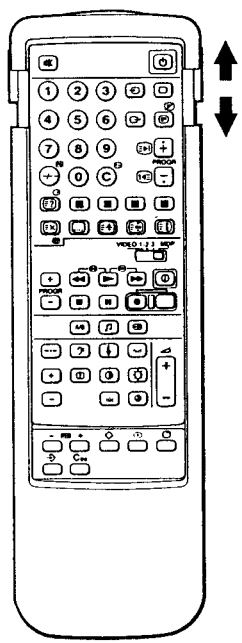
Operation	Result
1 Press ⇨ to begin the preselection.	 The programme number flashes.
2 Press PROGR + /– or the remote control unit number buttons to select the channel number to which you want to preset the station. **NOTE:** To select a 2-figure number press the -/-- button. E.g., if you wish to select number 23, press -/-- first, and then 2 and 3.	The programme number on the screen changes.
3 To search for broadcasting stations press ⊞ + and – buttons.	 When a broadcasting station is tuned correctly, the search will stop. If you want to skip it, press ⊞ + or – again.
4 Press ◇ to memorize the channel to that which the broadcasting station is tuned.	All data disappears from the screen.
5 To memorize other broadcasting stations repeat steps from 1 to 4.	



Direct TV channel setting

Operation	Result
1 Press ◇ to begin the presetting.	The programme number begins to flash on the screen.
2 Press PROGR + /– or the number buttons on the remote control unit to select the channel number to which you want to preset the station. **Note** To select a 2-figure number press -/-- button. E.g., if you wish to select number 23, press -/-- first, and then 2 and 3.	The programme number on the screen changes.
3 Press C. If you wish to select a cable station, press C twice.	Indication "C–" ("S–" for cable stations) flashes on the screen
4 By using the number buttons of the remote control unit select the channel number, always with two figures (for "4" press "04"). **Note:** Press the second number within 5 seconds of the first. After 5 seconds the operation is cancelled.	The channel number changes on the screen. **Note:** In case of mistake, the "X" letter appears on the screen. Repeat once more the operation of step 4.
5 Press ◇ to memorize the channel to which the station is tuned.	All indications disappear from the screen.

To memorize other broadcasting stations repeat the above procedure.



Broadcasting station identification

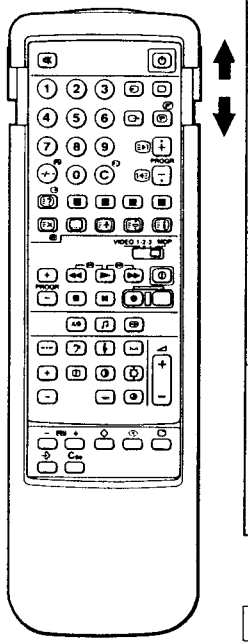
By associating a name with a certain broadcasting station it is possible to avoid having to remember, each time, in which channel number that particular station has been memorized.
Five different characters are available for station identification.

Operation	Result
1 By using PROGR + or –, or the number keys of the remote control unit, select the programme number to be set for identification.	The programme number to be set for identification appears on the screen.
2 Press ◇	The number flashes on the screen.
3 Press □	The first indication line flashes on the screen.
4 Press the + or – buttons to select a letter of the alphabet, a number, or a blank space.	Alphabetic letters, numbers or a blank space ("–") appear on the screen, in that order.
5 Press □	In this way the first character has been set, and the following position now flashes on the screen.
6 Repeat steps 4 and 5, and fill all five available spaces.	
7 Press ◇.	All indications disappear from the screen, except the programme number. All indications remaining on the screen have been memorized.

Temporary channel tuning

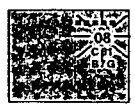
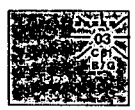
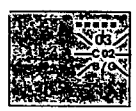
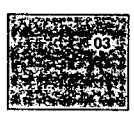
It is possible to temporarily memorize a channel, even if it has not been preset.

Operation	Result
1 Press C. Press C twice for a cable station.	"C" ("S" for cable stations) indication appears on the screen.
2 Using the number keys of the remote control unit select the channel number, always with two figures (e.g., "04" for channel "4").	The channel will be received, but it will not be set as a programme number.



Skipping channels

Using the PROGR + /– buttons you can skip unused programme numbers. However, the skipped numbers may still be called up using the number buttons.

Operation	Result
1 Press ⇢ to begin presetting.	 The programme number begins to flash on the screen.
2 By using the PROGR + and – buttons, or the number keys of the remote control unit, select the programme number you wish to skip.	 The programme number changes.
3 Press C00 .	 Under the programme number, the lowest channel number appears.
4 Press ◇ .	 All indications under the programme number disappear from the screen. The skipped programme number will be memorized.

Manual fine tuning

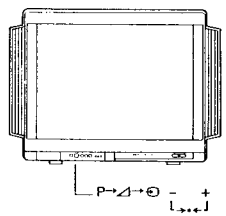
If the picture is not perfect, it is possible to fine tune it manually.

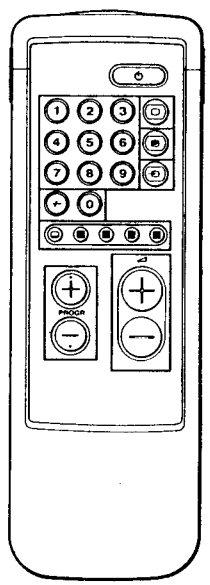
Operation	Result
Press ⊞ + or – repeatedly until the picture is at the optimum.	The indication ←F→ appears on the screen.
Press ⇢ to start preselection.	The programme number starts flashing on the screen.
Press ◇ .	Manual fine tuning has been memorized.

Note: Manual fine tuning will be reset when the channel is selected again.

1-3. BASIC FUNCTIONS

Per aprirlo premete sulla freccia. (↓)

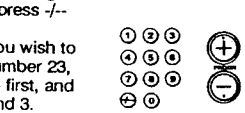
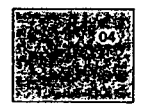




This section introduces you to the basic control functions which are available on the "simple" side of the remote control unit.

Programme selection

Before selecting programmes make sure that TV channels have been memorized.

Operation	Result
Press PROGR + /– buttons or the number keys of the remote control unit. To select a 2-figure number press -/-- button. E.g., if you wish to select number 23, press -/-- first, and then 2 and 3. 	 The selected programme number appears on the screen.

Volume control

Operation	Result
Press ◿ + or –.	The volume indication appears on the screen.

Use of additional functions

Use of other functions with the TV set buttons

It is also possible to select programmes and to adjust the volume by using P→◿→⊖ and →••← + or – buttons, located on the front panel of the TV set.
In this case, press first P→◿→⊖ until the indication P (channel) or ◿ (volume) appears on the screen, and then press →••← + or – buttons.

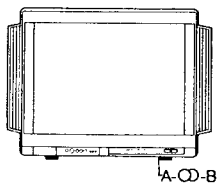
Use of teletext service

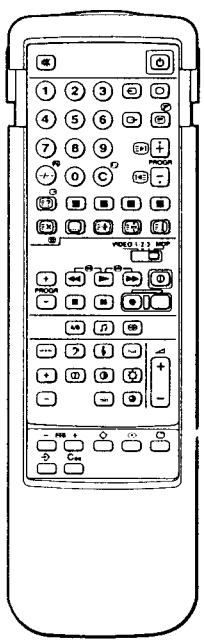
Press ▣. To return to the TV mode, press ▢. For further information on the teletext service

Selection of the video input

Press ⊖. To return to the TV mode, press ▢. For further details,

1-4. SPECIAL FUNCTIONS





This section explains the use of functions for adjusting pictures and sound.
Use the "complete" side of the remote control unit.

Use of special functions

The following functions can be used.

Function	Operation	Reset
Indication display	Press	Press again.
Sound muting	Press	Press again.
Language selection for bilingual programmes.	Press A/B. The selected language is displayed by the relevant indication on the screen.	Press A/B.
Sound adjustment for music programmes.	Press	Press again.
Use of special sound effects.	Press	Press again.
Time display (only during teletext broadcasting).	Press	Press again.

Picture and sound adjustment

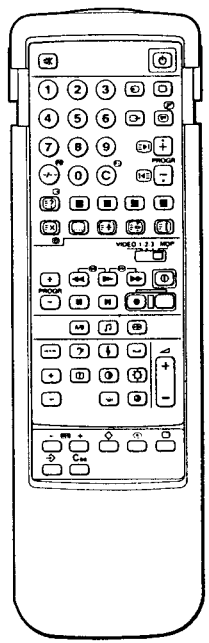
Although the picture and sound have been adjusted at the factory, you might want to adjust them to your own taste. To do this, please follow the steps below.

To Adjust:	Press:	Then:	Result: (+ ↔ –)
Picture:			
Colour Intensity		[+]	More ↔ Less
Contrast		[+]	More ↔ Less
Brightness		[–]	Bright ↔ Dark
Hue (for NTSC only)		[–]	Reddish ↔ Greenish
Sharpness			More ↔ Less
Sound:			
Bass		[+]	More ↔ Less
Treble		[+]	More ↔ Less
Balance		[–]	Left ↔ Right

To reset the picture and sound to factory set levels, press →•←.

On the set: Press the →•← and + /– buttons simultaneously.

1-5. USE OF THE TELETEXT SERVICE



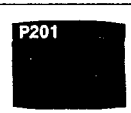
Through the teletext service a great deal of information can be received at any time. Broadcasting stations make this service available through TV broadcasts. To use the teletext service, use the green keys on the "complete" side of the remote control unit. When the "simple" side of the remote control unit is used, only the basic functions are available.

How to display teletext service

Operation		Result
1	Select the channel you want to watch.	The channel changes on the screen.
2	Press	If there is no teletext signal, the indication "Page 100" appears on the screen.
3	Use the number keys of the remote control unit to insert the three figures corresponding to the desired teletext page. **Note** In case of a mistake, press any three numbers, and then repeat the operation with the correct numbers.	The selected page number appears on the screen. After a few seconds, the selected page appears on the screen.
	To return to normal TV programmes: Press .	
	To change teletext channel: First press to return to the TV mode, and then repeat steps 1 to 3.	

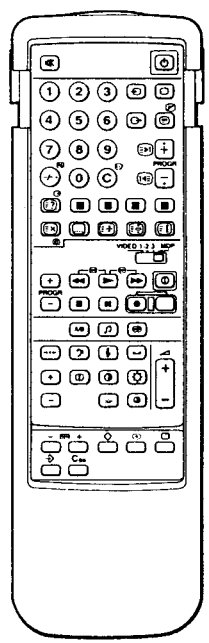
Note: A weak TV signal may cause trouble in the use of teletext.

Use of special teletext functions

Required function	Operation	Result (on the screen)
Page index required.	Press (INDEX).	Page index appears.
Sub-pages required (page 888).	Press .	The sub-page appears (page 888).
Access to previous or following pages.	Press (PAGE +) or (PAGE –).	 The preceding or the following page appears.

Required function	Operation	Result (on the screen)
Superimposition of the teletext on the TV programme.	In the TV mode, press ⓔ twice. To return to the normal teletext function press ⓔ again.	Teletext information will appear superimposed on the TV programme.
To prevent page changes due to page updating.	Press ⓑ (STILL). Press ⓔ (TXT/MIX) to return to the normal function.	The ⓑ (STILL) symbol appears on the screen.
Magnification of teletext characters.	Press ⓒ once to magnify the upper half of the screen. Press twice to magnify the lower half of the screen. By pressing the button three times the normal vision is restored.	The upper or the lower half of the page is magnified.
Display of hidden information (answers to quizzes, etc.).	Press ⓓ (RIV). Press again to hide the answers.	The information is displayed.
Watching a programme while the teletext searches for the required page.	1. Ask again for the page.	The number is displayed.
	2. Press ⓐ	TV programme is displayed.
	3. When the required page has been found, the page number will be displayed.	
	4. Press ⓔ to display the page.	The desired page will be displayed.
Display of a page at a preset time.	1. Request the page.	The selected page will be displayed.
	2. Press ⓜ (MEM.T).	In the lower part of the screen the indication "T****" appears.
	3. Set the required time by using the number keys, and by inputting four figures (e.g. 0730 for "7:30").	The required time is displayed on the screen.
	To watch TV programmes until a preset time Press ⓐ (CANC.). At the required time, the selected page appears in the upper part of the screen. Press ⓔ to display the page. **To cancel the request** Display the teletext page and then press ⓜ (CANC.M.).	

Note: Depending on the teletext service, certain functions may not be available.



Use of the FASTEXT function

The FASTEXT function allows rapid access, at the touch of a single button, to the teletext functions. In the lower part of the screen, a colour coded index will be displayed when a FASTEXT teletext page is broadcasted. Each colour corresponds to the colored keys on the remote control unit.

Operation

Operation	Result
Press one of the coloured keys on the remote control unit corresponding to the coloured indications of the FASTEXT teletext page.	The selected teletext page appears on the screen.

Note:
The correct use of the FASTEXT function depends on the signal being broadcast by the TV stations. Some TV stations may not broadcast FASTEXT teletext signal.

1-6. CONNECTIONS AND OPTIONAL FUNCTIONS

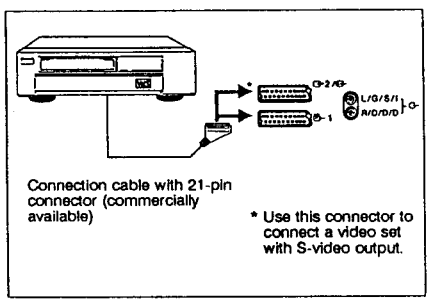
This TV set may be connected to other audio/video machines, such as videocameras, VTRs, videodisc players, or stereo systems.

Connection to an external audio/video system

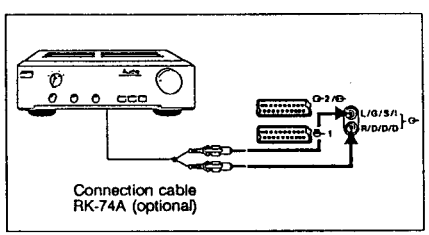
This TV set incorporates three groups of connectors, for input and output to the TV signal. Each group has the following characteristics.

Connector	Input signal	Output signal
1	Normal audio/video signal or RGB signal	TV tuner audio/video signal
2/	Normal audio/video signal and S-video signal	Audio/video signal from a selectable source
, , front panel	Normal audio/video signal and S-video signal	No signal

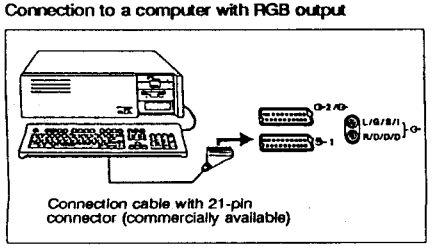
Connection of a TV set


Connection cable with 21-pin connector (commercially available)
* Use this connector to connect a video set with S-video output.

Connection of an audio unit

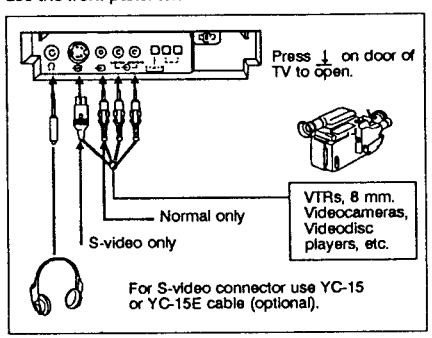


Connection to a computer with RGB output



Temporary connection of video apparatus

For a temporary connection (e.g. of a videocamera) use the front panel terminals.


Press on door of TV to open.
Normal only
S-video only
VTRs, 8 mm. Videocameras, Videodisc players, etc.
For S-video connector use YC-15 or YC-15E cable (optional).

Connection of a videotape recorder through the T connector

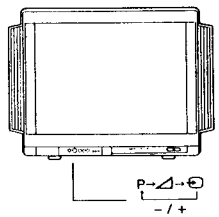
Connect the antenna input (AERIAL-IN) of the TV set to the antenna output (AERIAL-OUT) of the videotape recorder.

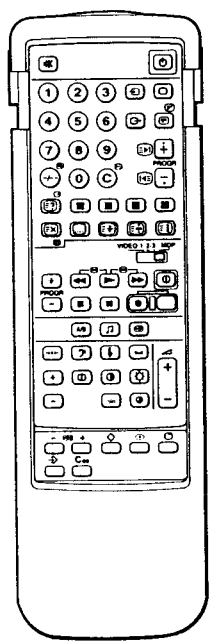
S-video input (Y/C input)

The video signal is formed by two separate signals: the luminance (Y) and the chrominance (C). Through the separation of the two signals it is possible to improve picture quality (luminance in particular), preventing reciprocal interference. This TV set features two S-video sockets able to directly receive this type of signal.

Pictures with distortion

Move the TV set away from the videotape recorder if pictures or sound become distorted.





Video programme playback

Using the input selector, pictures coming from a videotape recorder connected to the TV sets input may be played back.

Operation

Operation	Result
Select the desired video input by pressing repeatedly.	The symbol of the selected input appears on the screen (see table below).
Press button to return to TV mode.	

Selectable inputs

Symbol	Selected input
1	Audio/video signal from 1 connector.
	RGB signal from 1 connector.
2	Audio/video signal from 2/ connector.
2	S-video signal (from a VTR with S-video output) from 2/ connector.
3	Audio/video signal from , connector located on the front panel.
3	S-video signal from S-video (4 pin) connector located on the front panel.

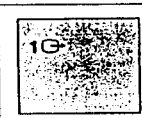
Input can be selected also with the P buttons of the TV set.

In this case, first select , and then press the + /– buttons to select the desired input.

Selection of video output

The 2/ connector may output 4 video signals. Select the outgoing video signal in the following way.

Operation

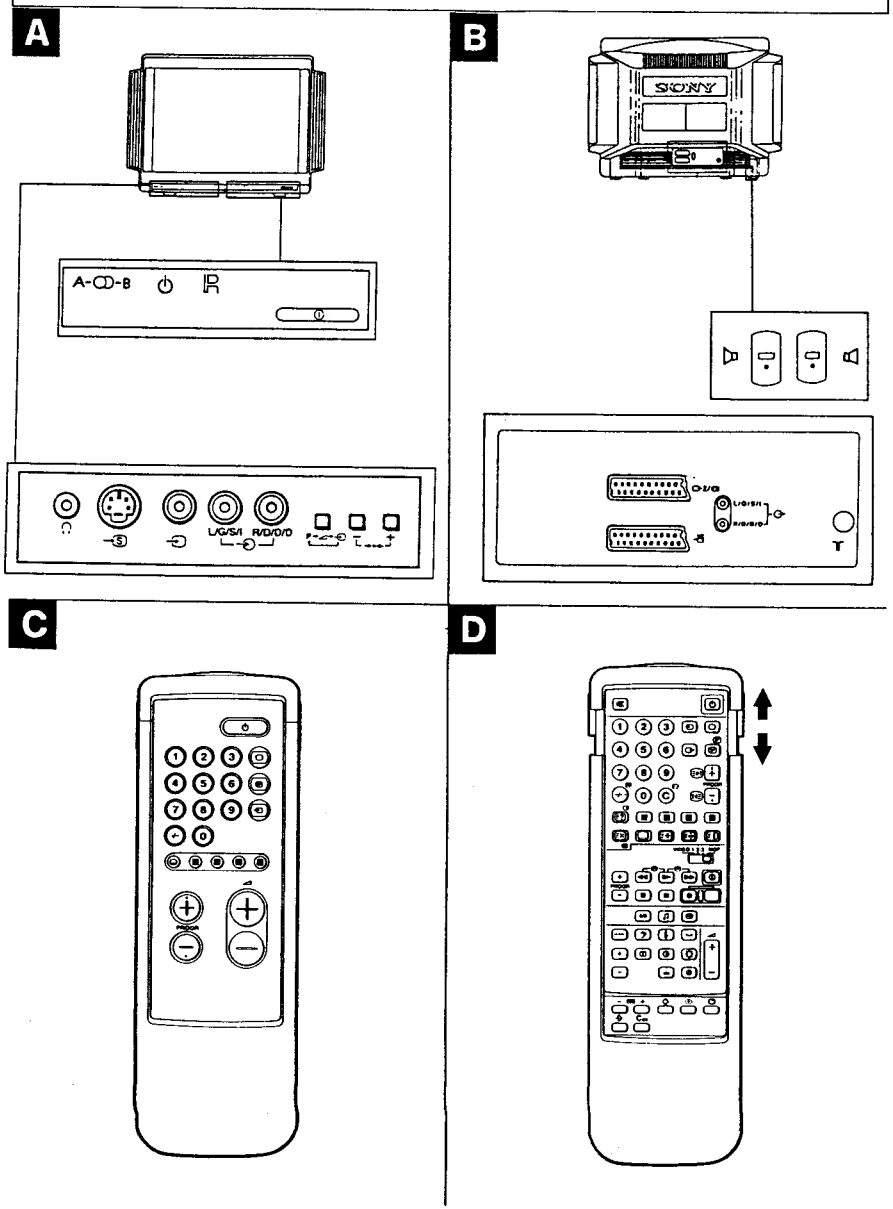
Operation	Result
Press repeatedly to select the desired video output.	 The selected video output symbol appears on the screen (see the table following).

Output signal

Symbol	Selected output
1	Audio/video signal from 1 connector.
2	Audio/video signal from 2/ connector.
3	Audio/video signal from and connectors.
TV	Audio/video signal from T-type antenna connector T.

1-7. GENERAL INFORMATION

Components identification



This section briefly describes controls of the TV set and the remote control unit, and their relevant functions.

A	TV set front panel
Indication	Description
⏻	Power switch
⏻	Standby switch
A - CD - B	Bilingual function indications
🎧	Headphones connector (stereo mini-jack)
	Input connectors (S-video/video/audio)
P	Function selector (programme/volume/input)
− +	Function adjustment keys

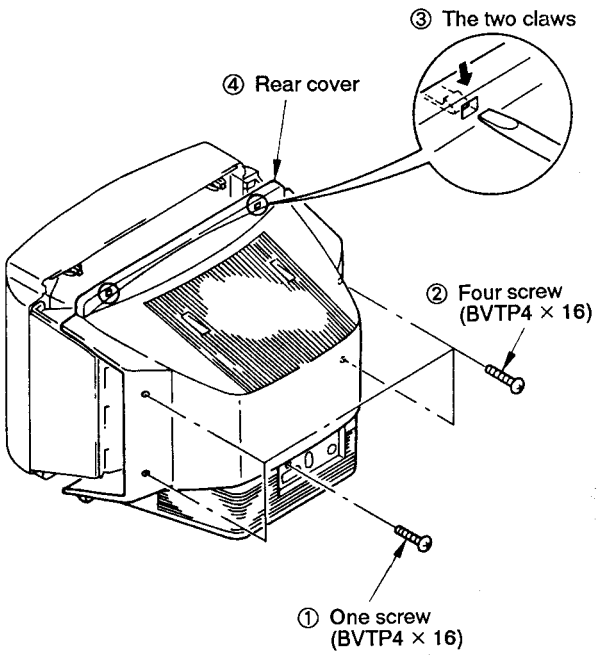
B	TV set rear panel
Indication	Description
	Speaker connectors (upper: left speaker; lower: right speaker)
2/	Connector 2, Euro AV (SCART, 21-pin). S-video In/video In/TV/video out signals.
1	Connector 1, Euro AV (SCART, 21-pin). RGB In/video In/TV/out signals.
	Audio output connectors (RCA pin)
	Antenna connector (of IEC standard)

C	Remote control unit — simplified side
Indication	Description
	Input selector
	Teletext service key
	FASTEXT operation buttons
	TV set power switch and TV mode selector
⏻	Standby key
1,2,3,4,5, 6,7,8,9,0	Number keys
-/--	Channel selection key/ 2-figure programmes
+ /-	Volume adjustment key
PROGR + /-	Programme selection key

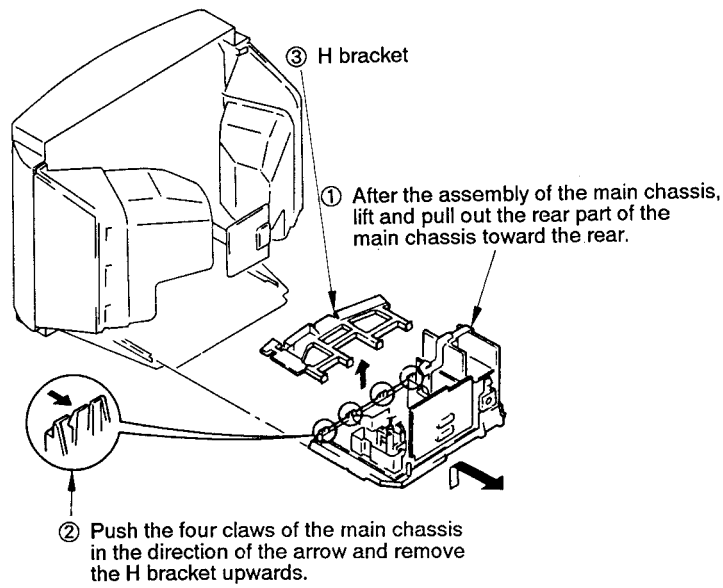
D	Remote control unit — complete side
Indication	Description
	Sound muting key
⏻	Standby key
1,2,3,4,5, 6,7,8,9,0	Number keys
	Input selector
	TV set power switch and TV mode selector
	Output selector
	Teletext key
	Music programme key
A/B	Bilingual programmes language selection
-/--	Channel selection key/ 2-figure programmes
C	Channel direct selection key
	Special sound effect key
	Time display
	Teletext operation keys
	FASTEXT operation buttons
	Display key
	Reset key
+ /-	Volume adjustment keys
PROGR + /-	Programme selection keys
+/-	Image and audio adjustment keys
VIDEO 1/2/3, MDP	Video unit selector
	Video units function key
C00	Programme cancelling key
	Channel presetting key
- +	Channel tuning keys
◇	Channel storing keys
	Broadcasting stations identification key

SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL

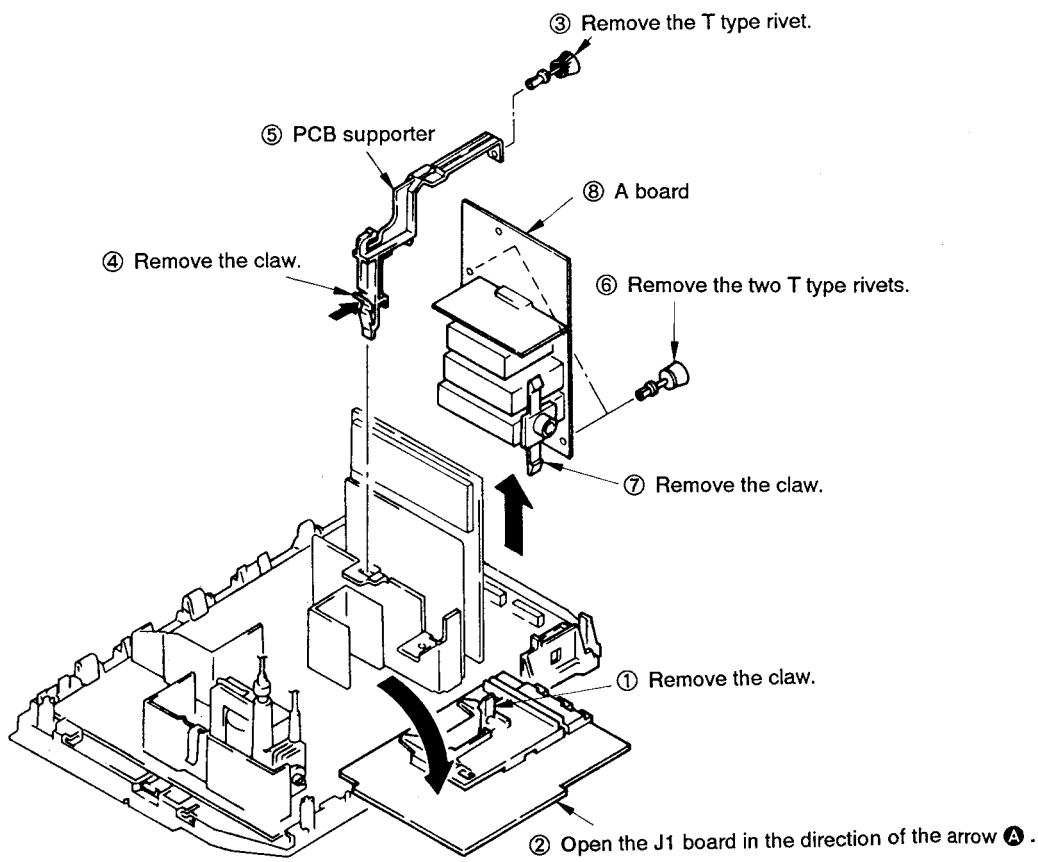


2-2. CHASSIS ASSEMBLY REMOVAL

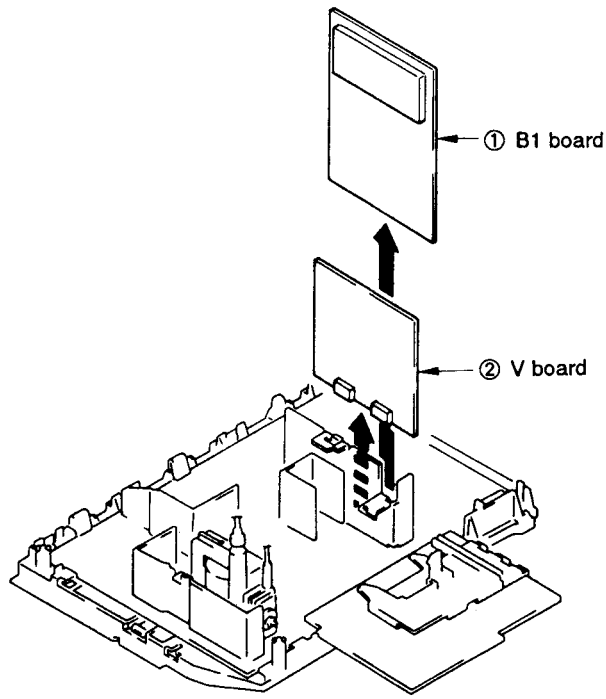

③ H bracket
① After the assembly of the main chassis, lift and pull out the rear part of the main chassis toward the rear.
② Push the four claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

※ Remove the H bracket from the main assembly and then perform the following servicing.

2-3. A AND J1 BOARDS REMOVAL

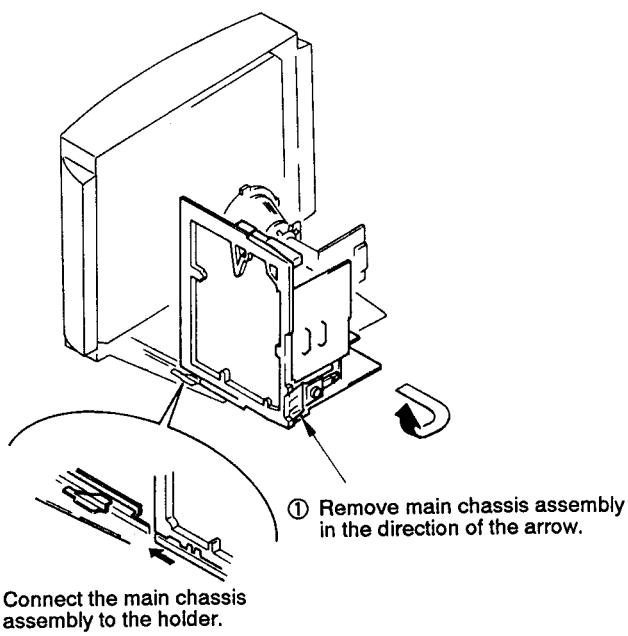

③ Remove the T type rivet.
⑤ PCB supporter
⑧ A board
④ Remove the claw.
⑥ Remove the two T type rivets.
⑦ Remove the claw.
① Remove the claw.
② Open the J1 board in the direction of the arrow Ⓐ.

2-4. B1 AND V BOARDS REMOVAL

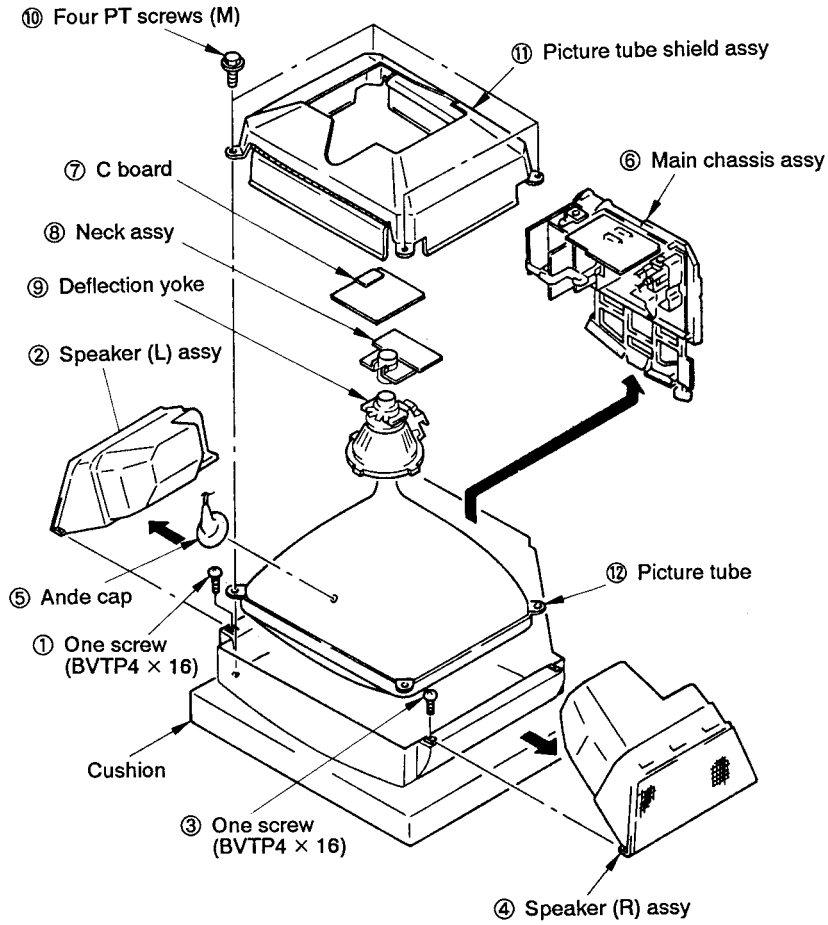


2-5. SERVICE POSITION

※ Remove the H bracket from the main assembly and then perform the following servicing.

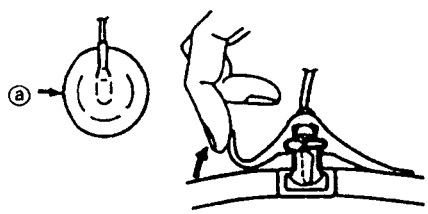


2-6. PICTURE TUBE REMOVAL

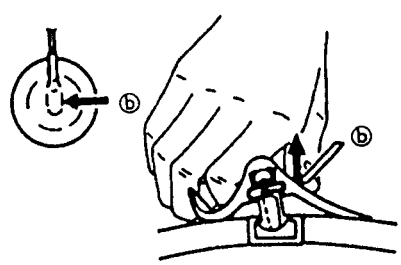


• REMOVAL OF ANODE-CAP

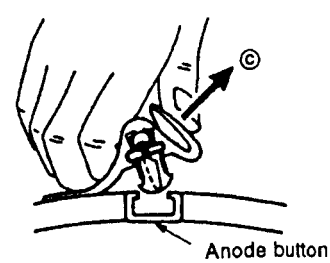
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



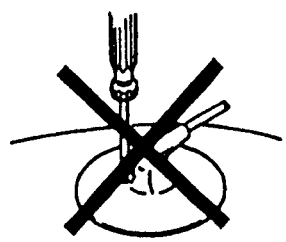
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

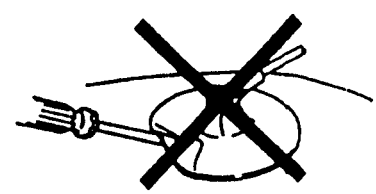
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
  - ◑ Contrast ·····80%
    (or remote control normal)
  - ☼ Brightness ·····50%

- Carry out the following adjustments in this order:
  1. Beam landing
  2. Convergence
  3. Focus
  4. White balance

Note : Testing equipment required
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :
- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast
   Bightness } normal
2. Position neck ass'y as shown in Fig 3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.
   (See Figures 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
   (See Figure 3-4.)

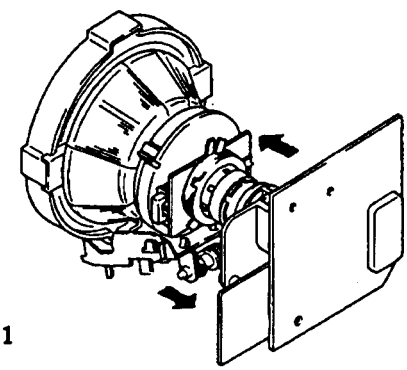
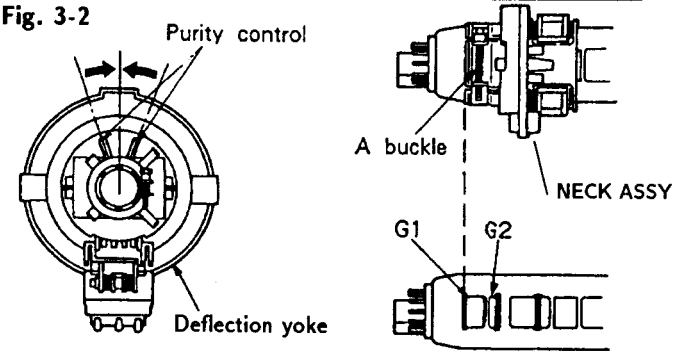
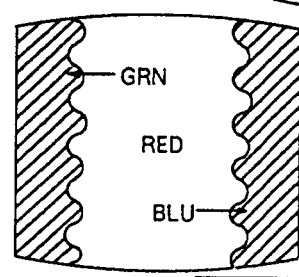


Fig. 3-1

Fig. 3-2





(29 inch only)

Fig. 3-3

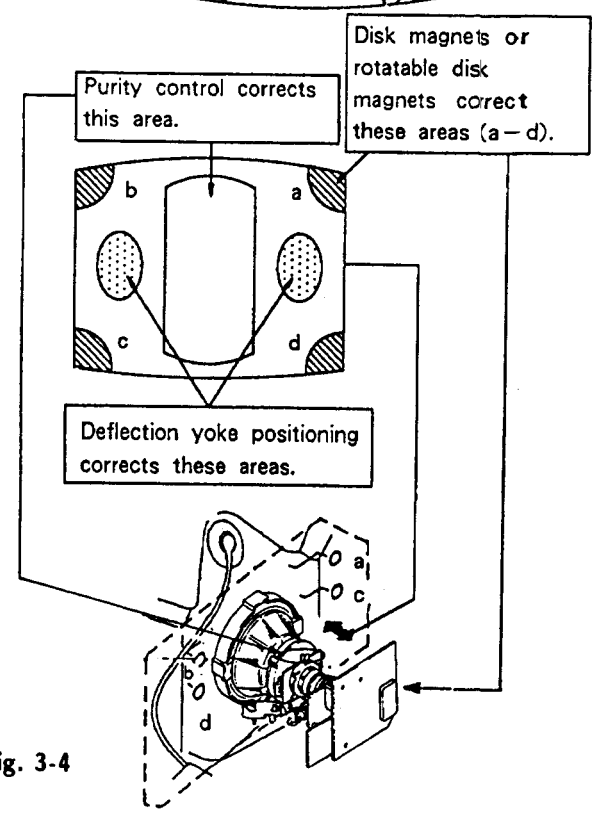


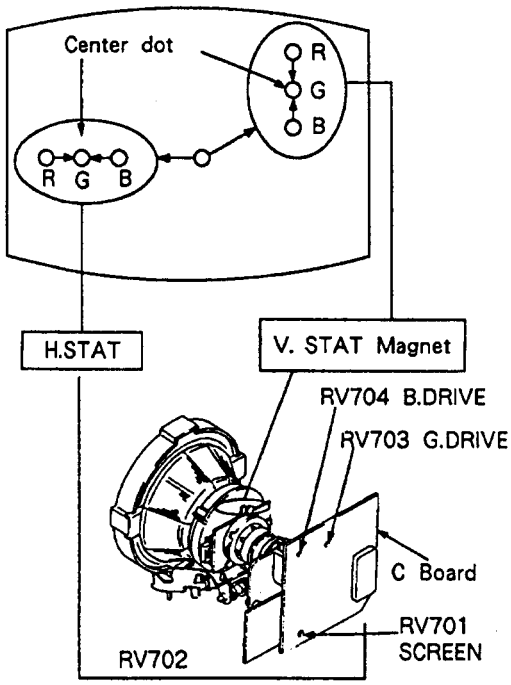
Fig. 3-4

3-2. CONVERGENCE

Preparations :

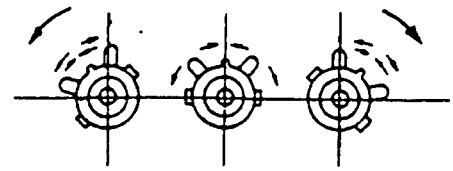
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

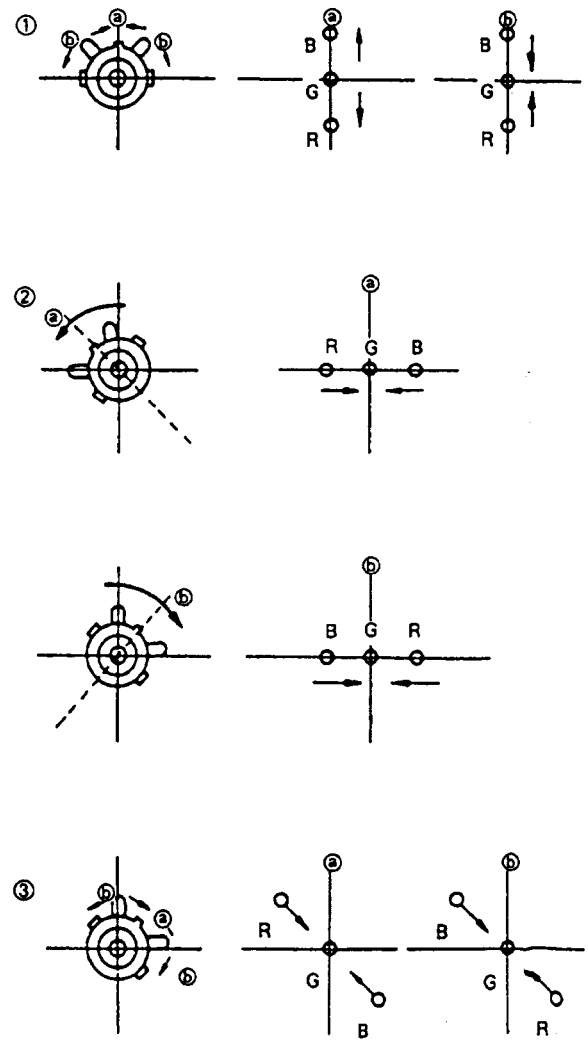


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

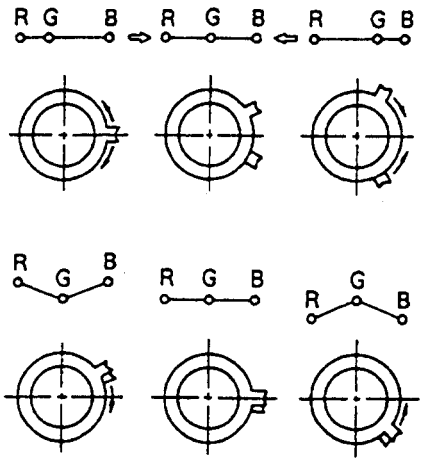
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

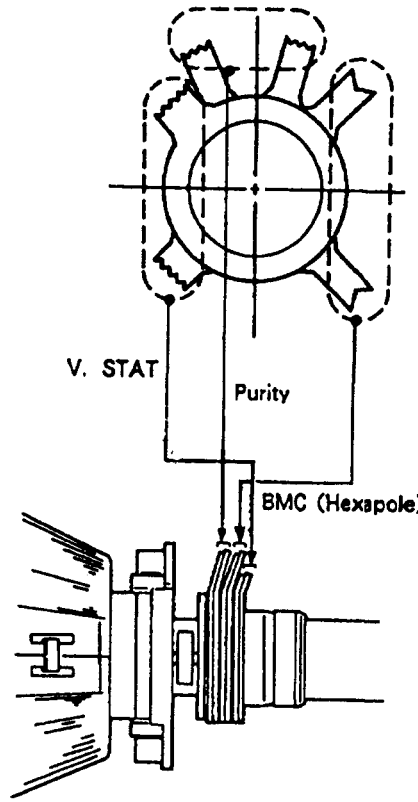


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



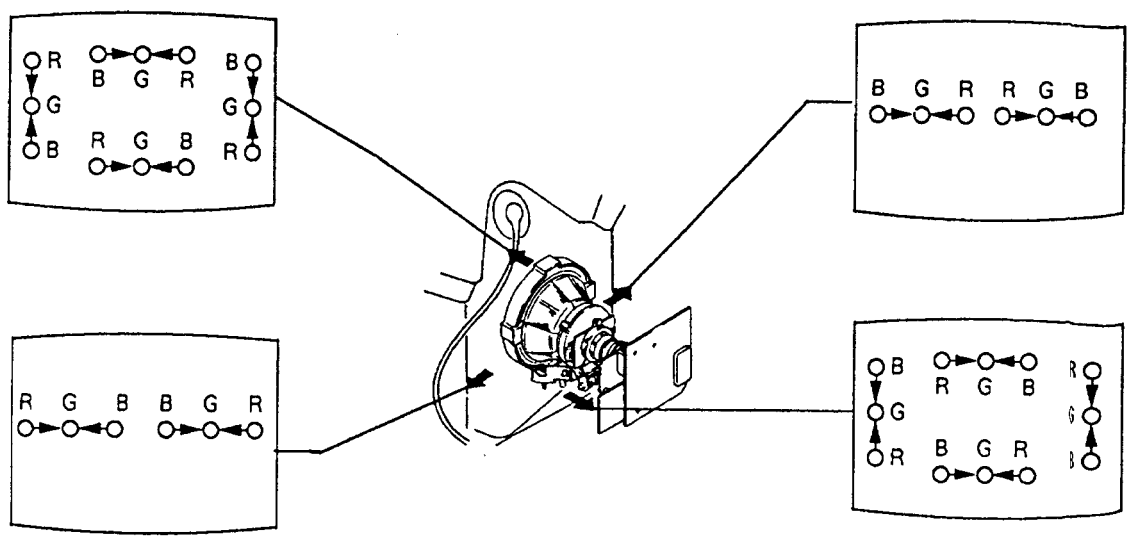


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

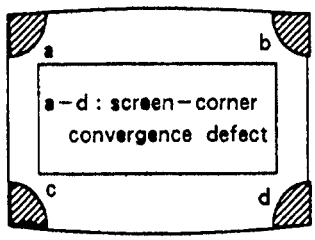
(2) Dynamic convergence adjustment
Preparations :

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

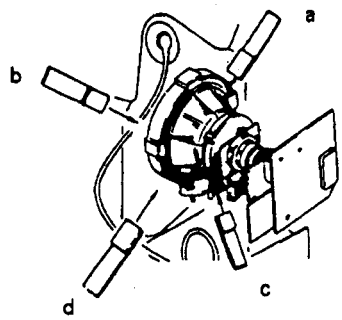
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the defelection yoke spacer.



(3) Screen corner convergence



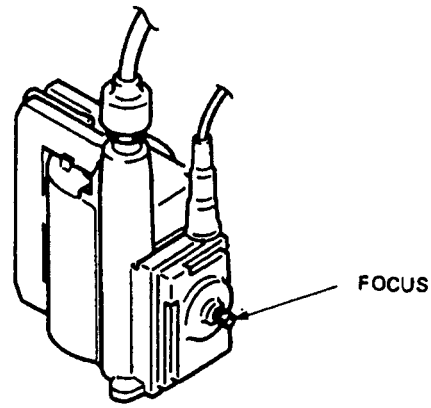
Install the permalloy assembly for the section with faulty.



Permalloy

3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

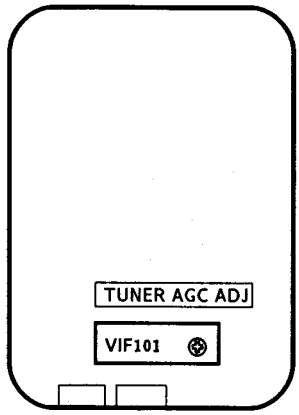
[White balance adjustment]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENTS

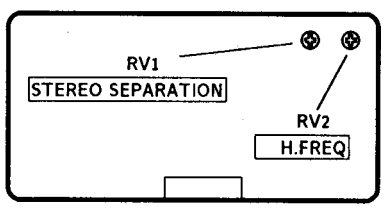


A BOARD (COMPONENT SIDE)

TUNER AGC ADJUSTMENT (AGC VR)

1. Align with an appropriate signal between stations.
2. Adjust AGC VR so that snow noise and cross modulation just disappear from the picture.

IFG5.5S SIF



IFG5.5S SIF -component side-

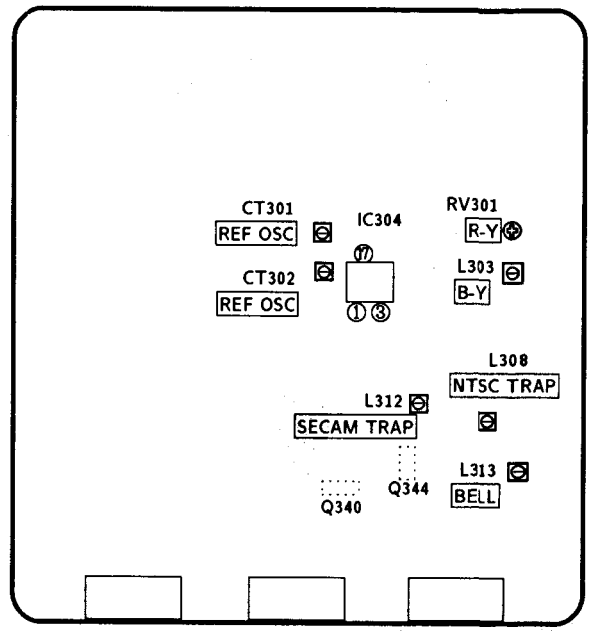
STEREO SEPALATION ADJUSTMENT (RV1)

1. Input stereo signals. (L-CH 400Hz, R-CH 1KHz)
2. Check the stereo indicator.
3. Connect on oscilloscope to pin⑧ (CH1) of CN1 through band pass filter of 1KHz
4. Adjust RV1 so that 1KHz voltage goes down to the minmum.

H FREQ (RV2)

1. Input a PAL COLOR BAR signal, then connect a jumper between pin⑫ IC4 and GND.
2. Connect a frequency counter to pin④ IFG5.5S (HP) of CN1 through a probe of 10 : 1.
3. Adjust RV2 (H.FREQ) 15.625±50Hz.
4. After adjustment, remove the jamper.

4-2. B1 BOARD ADJUSTMENTS



B1 BOARD (COMPONENT SIDE)

REFERENCE OSCILLATOR ADJUSTMENT (CT302 8.8MHz)

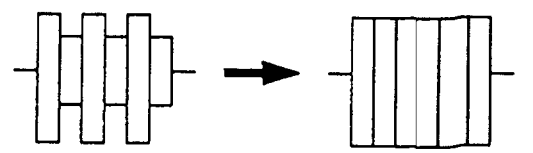
1. Input a PAL color bar signal.
2. Ground pin ⑰ of the IC304.
3. Adjust CT302 to obtain synchronization.

REFERENCE OSCILLATOR ADJUSTMENT (CT301 7.16MHz)

1. Input an NTSC color bar signal.
2. Ground pin ⑰ of IC304.
3. Adjust the CT301 to obtain synchronization.
4. Remove the jumper grounding pin ⑰ of IC304.

BELL FILTER ADJUSTMENT (L313)

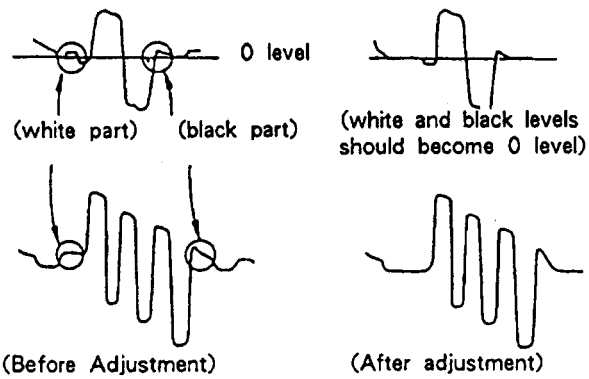
1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q344.
3. Adjust L313 so that the waveform is lat.



<Before Adjustment> <After Adjustment>

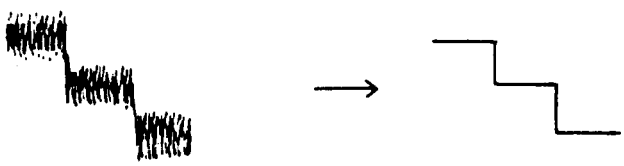
DISCRIMINATION ADJUSTMENTS (RV301 and L303)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to pin ① of IC304.
3. Adjust RV301 until the white and black sections of the waveform at pin ① are at the 0 level.
   Connect the oscilloscope to pin ③ of IC304.
4. Adjust L303 until the white and black sections of
5. the waveform at pin ③ are at the 0 level.



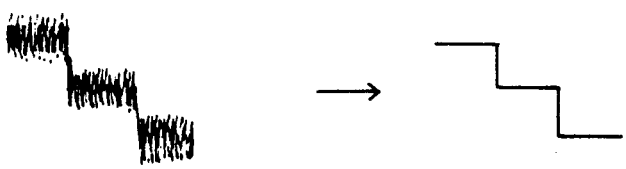
SECAM TRAP (L312)

1. Input a SECAM color bar signal.
2. Connect oscilloscope to Q340 emitter and adjust L312 to minimize color carrier on the Y-signal.

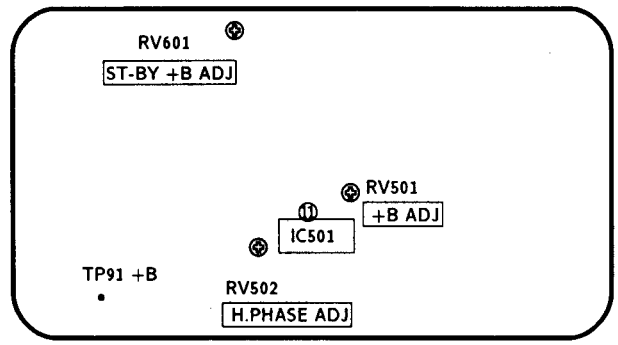


NTSC TRAP (L308)

1. Input a NTSC (3.58) color bar signal.
2. Connect oscilloscope to Q340 emitter and adjust L308 to minimize color carrier on the Y-signal.



4-3. D BOARD ADJUSTMENTS



D BOARD (COMPONENT SIDE)

+B ADJUSTMENT (RV501)

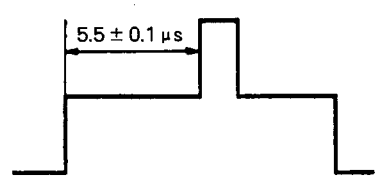
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain 135±0.2V.

ST-BY +B ADJUSTMENT (RV601)

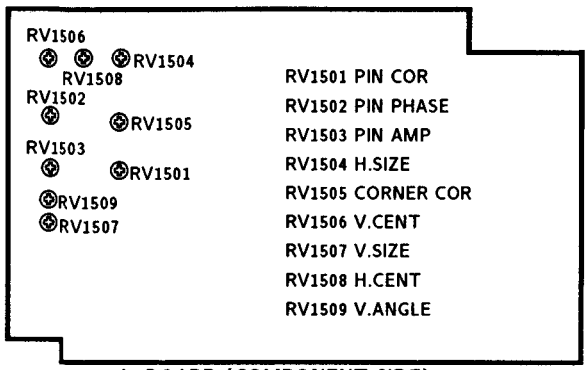
1. Put the system into ⏻ standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain 135±3V.
4. Take the system out of ⏻ standby mode (remote commander).

H.PHASE ADJUSTMENT (RV502)

1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
5. Rotate RV502 to adjust to 5.5 ± 0.1 μs.

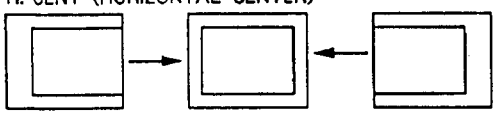


4-4. J1 BOARD ADJUSTMENTS

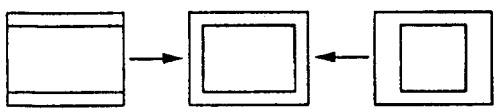


J1 BOARD (COMPONENT SIDE)

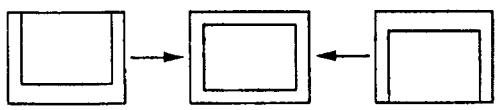
RV1508
H. CENT (HORIZONTAL CENTER)



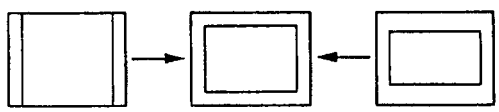
RV1504
H. SIZE (HORIZONTAL SIZE)



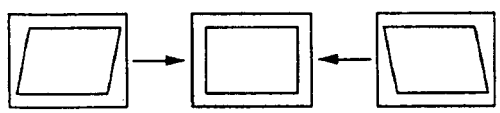
RV1506
V. CENT (VERTICAL CENTER)



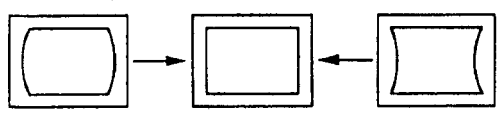
RV1507
V. SIZE (VERTICAL SIZE)



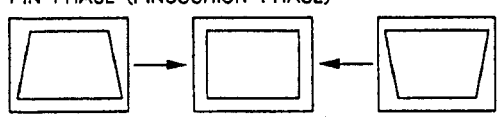
RV1509
V. ANGLE (VERTICAL ANGLE)



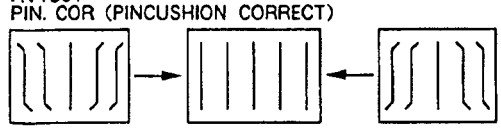
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



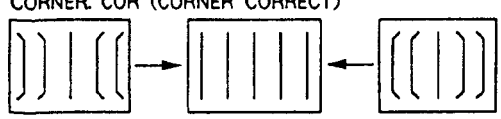
RV1502
PIN PHASE (PINCUSHION PHASE)



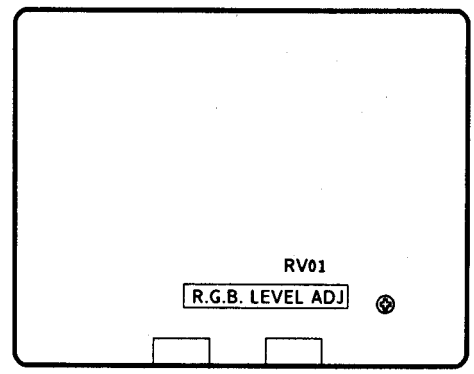
RV1501
PIN. COR (PINCUSHION CORRECT)



RV1505
CORNER COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENT



V BOARD (COMPONENT SIDE)

RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

4-6. SECONDARY ADJUSTMENTS

SUB BRIGHTNESS ADJUSTMENT

1. Set the system to receive a test pattern.
2. Press → • ← on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Minimize the ◑ contrast setting.
6. Adjust the ☼ brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
7. Depress the ◇ (store) button of the remote commander.
   (SUB mode is released)

   If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press → • ← on the remote commander to put the system into normal mode.
   Set the ◑ color to its normal state.

3-5. Steps are the same as above.

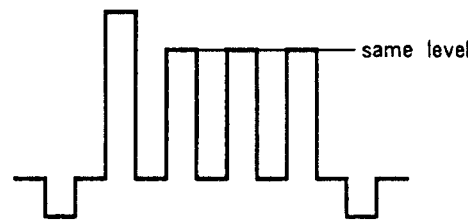
6. Since 20 IRE is nearly blue, adjust the ☼ brightness control so that the blue barely glows.

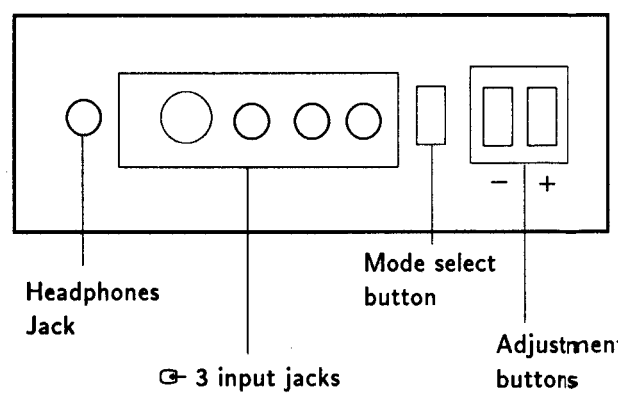
7. Same as step 7 above.

8. Press → • ← on the remote commander to put the system into normal mode.

SUB COLOR ADJUSTMENT

1. Set the system to receive color bars.
2. Press → • ← on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and − simultaneusly, turn on the power. (SUB mode is obtained).
5. Adjust the color control so that the B out waveform (pin ⑤ of C board connector CNC72) is as shown in the figure below.
6. Depress the ◇ (store) button of the remote commander. (SUB mode is released)

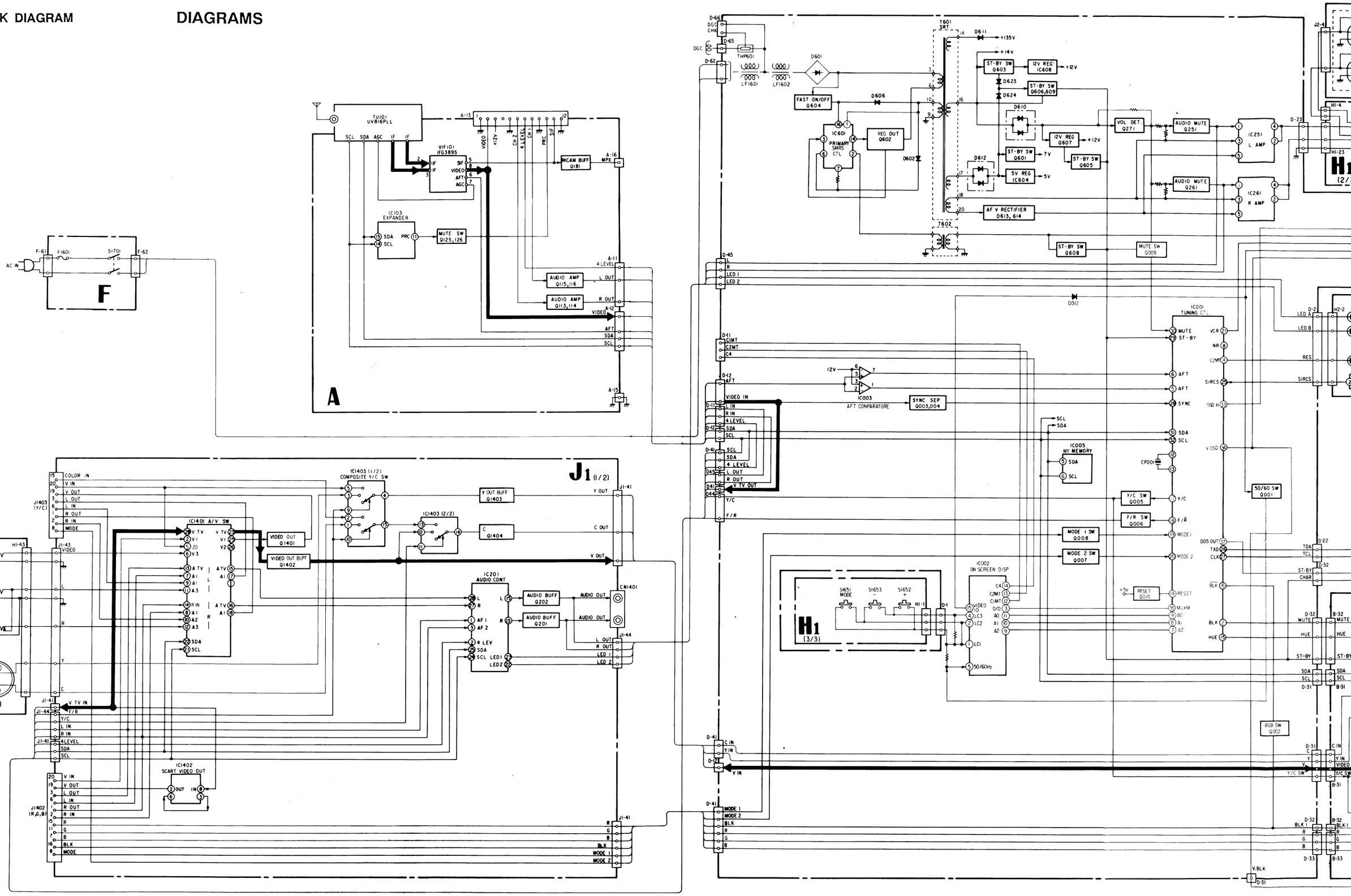


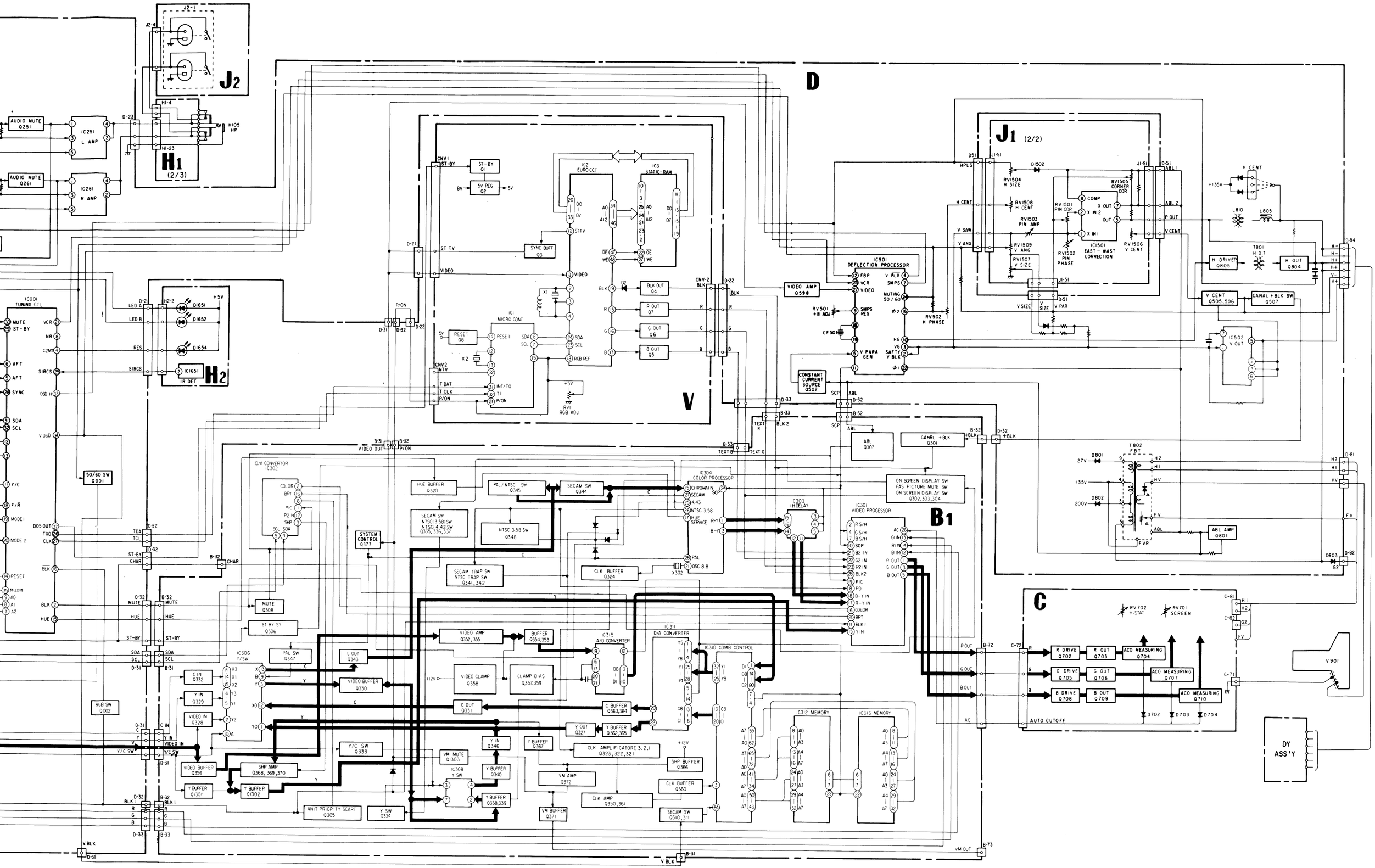


MEMO

SECTION 5
DIAGRAMS

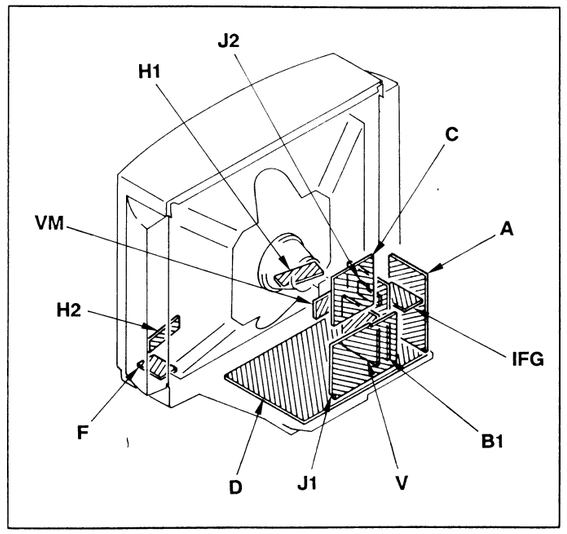
5-1. BLOCK DIAGRAM




D
V
B1
C
J1 (2/2)
J2
H1 (2/3)
H2
IC501 DEFLECTION PROCESSOR
IC304 COLOR PROCESSOR
IC301 VIDEO PROCESSOR
IC303 TH DELAY
IC311 D/A CONVERTER
IC315 A/D CONVERTER
IC310 COMB CONTROL
IC312 MEMORY
IC313 MEMORY
IC306 Y/Sw
IC302 D/A CONVERTOR
IC1 MICRO CONT
IC2 EURO CCT
IC3 STATIC-RAM
IC001 TUNING CTL
IC251 L AMP
IC261 R AMP
IC1651 IR DET
VIDEO AMP Q598
CONSTANT CURRENT SOURCE Q502
ABL Q307
CANRL + BLK Q301
ON SCREEN DISPLAY SW FAS PICTURE MUTE SW ON SCREEN DISPLAY SW Q302,303,304
H DRIVER Q805
H OUT Q804
V CENT Q505,506
CANAL + BLK SW Q507
ABL AMP Q801
R DRIVE Q702
G DRIVE Q705
B DRIVE Q708
R OUT Q703
G OUT Q706
B OUT Q709
ACO MEASURING Q704
ACO MEASURING Q707
ACO MEASURING Q710
AUTO CUTOFF
RV702 H-STAT
RV701 SCREEN
DY ASS'Y
V901
T801 H.D.T
T802 FBT
L810
L805
ST-BY Q1
5V REG Q2
SYNC BUFF Q3
RESET Q8
BLK OUT Q4
R OUT Q7
G OUT Q6
B OUT Q5
50/60 SW Q001
MUTE Q308
ST BY SW Q306
PAL SW Q347
RGB SW Q002
HUE BUFFER Q320
PAL/NTSC SW Q345
SECAM SW Q344
SECAM SW NTSC3.58SW NTSC4.43SW Q335,336,337
NTSC 3.58 SW Q348
SECAM TRAP SW NTSC TRAP SW Q341,342
SYSTEM CONTROL Q373
CLK BUFFER Q324
VIDEO AMP Q352,355
BUFFER Q354,353
VIDEO CLAMP Q358
CLAMP BIAS Q357,359
VIDEO BUFFER Q330
C BUFFER Q363,364
Y BUFFER Q362,365
C OUT Q343
C OUT Q331
C IN Q332
Y IN Q329
VIDEO IN Q328
VIDEO BUFFER Q356
Y BUFFER Q301
SHP AMP Q368,369,370
Y BUFFER Q302
Y/C SW Q333
ANIT PRIORITY SCART Q305
Y SW Q334
VM MUTE Q1303
Y BUFFER Q340
Y BUFFER Q338,339
Y IN Q346
Y BUFFER Q367
VM AMP Q372
VM BUFFER Q371
CLK AMPLIFICATORE 3.2.1 Q323,322,321
CLK AMP Q350,361
SHP BUFFER Q366
CLK BUFFER Q360
SECAM SW Q310,311
RV1 RGB ADJ
X1
X2
X302
RV501 +B ADJ
RV502 H PHASE
RV503 PIN AMP
RV504 H SIZE
RV505 CORNER COR
RV506 V CENT
RV507 V SIZE
RV508 H CENT
RV509 V ANG
RV1501 PIN COR
RV1502 PIN PHASE
IC1501 EAST-WAST CORRECTION
CF501
D1502
D801
D802
D803
V BLK
VIDEO OUT
P/ON
Y/C SW
VM OUT
AUDIO MUTE Q251
AUDIO MUTE Q261
D1651
D1652
D1654

H1 [CONTROL SW, AV INPUT, HEADPHONE] **H2** [SIRCS RECEIVER, INDICATOR] **F** [AC IN POWER SW] **J2** [SPEAKER TERMINAL]

5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital maltimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage varietions may be neted due to normal production tolerances.
- All voltages are in V.
- Circuled numbers are waveform references.
- ▬▬ : B+ bus.
- ➡ : signal path.(RF)

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS – Conductor Side –

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

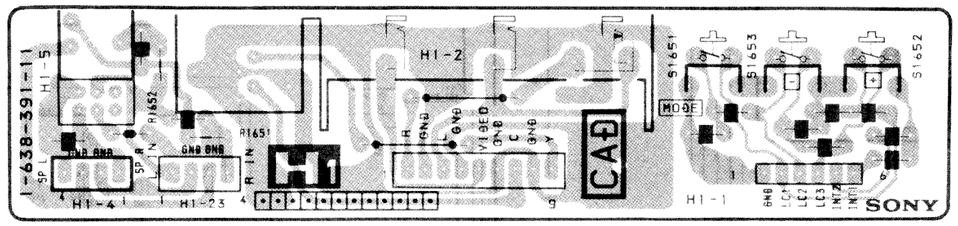
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms. kΩ =1000Ω , MΩ =1000KΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

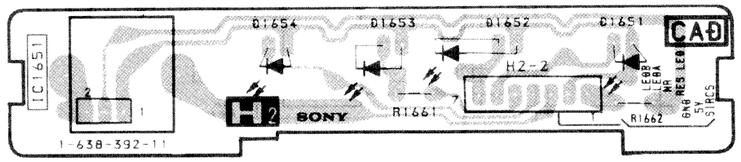
Pitch: 5 mm Rating electrical power ¼ W

- ⊣▭⊢ : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- # : no mounted.

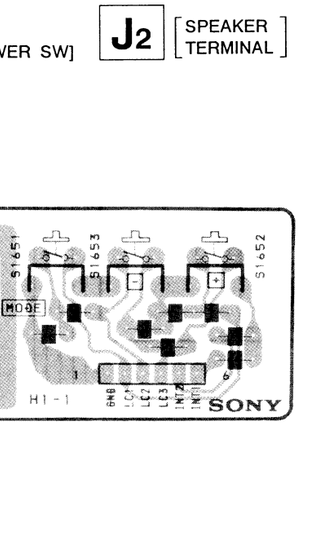
– H1 Board –



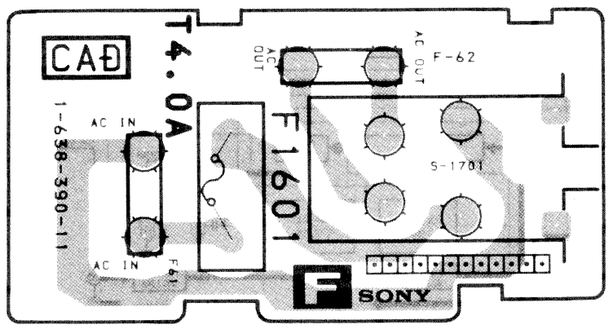
– H2 Board –



– J2 Board –

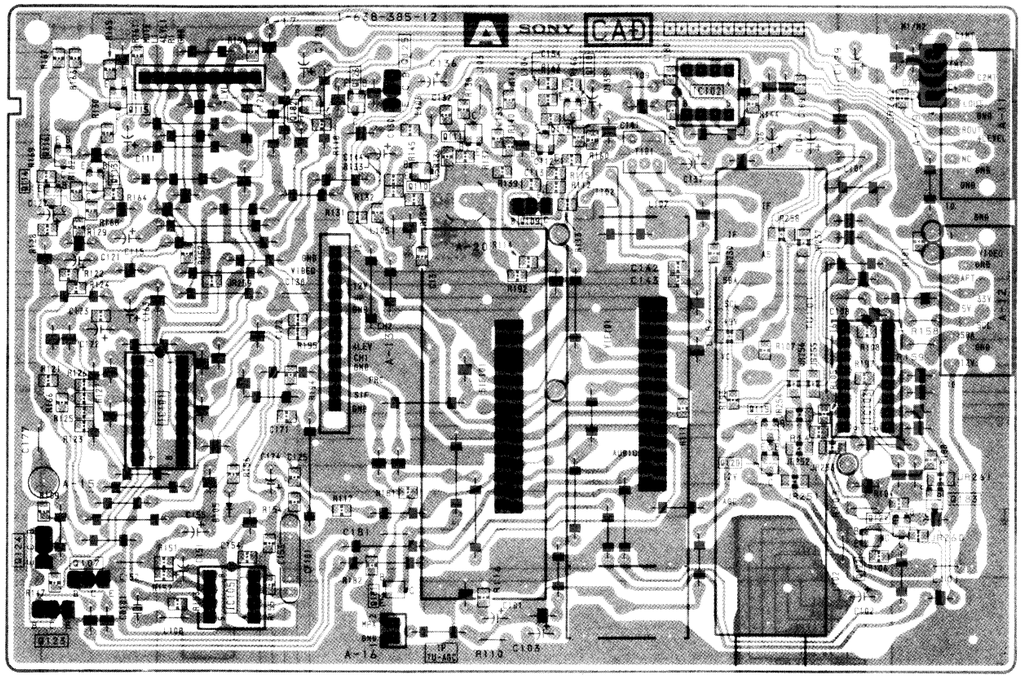


– F Board –

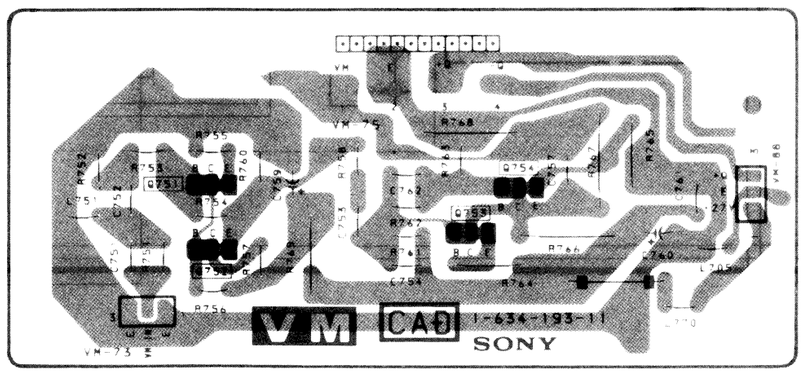


A [TUNER, SIF,VIF] **VM** [VM AMP] **J1** [AUDIO CONTROL, AV INPUT Y/C INPUT, SCAR VIDEO OUT, EAST-WEST CORRECTION]

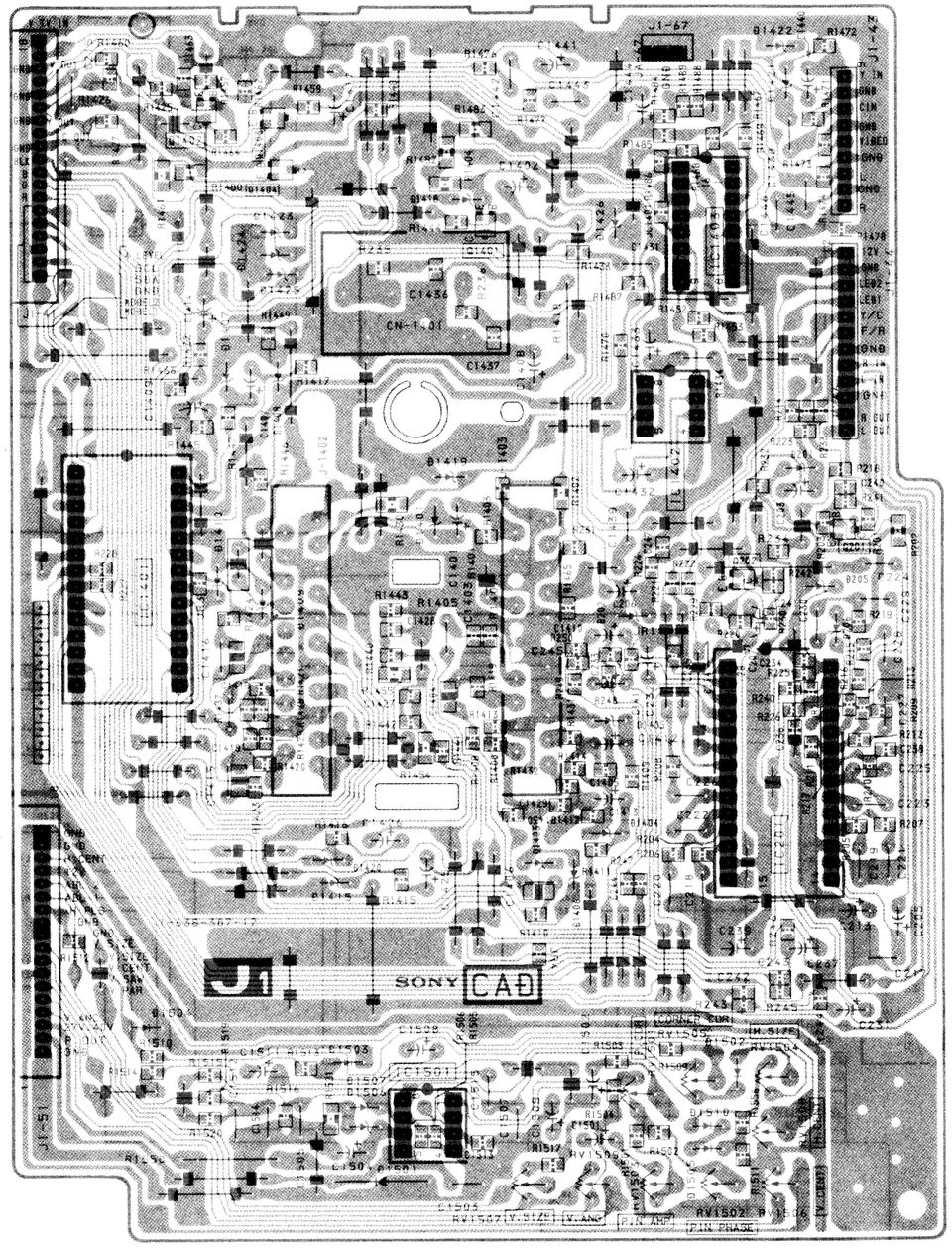
– A Board –

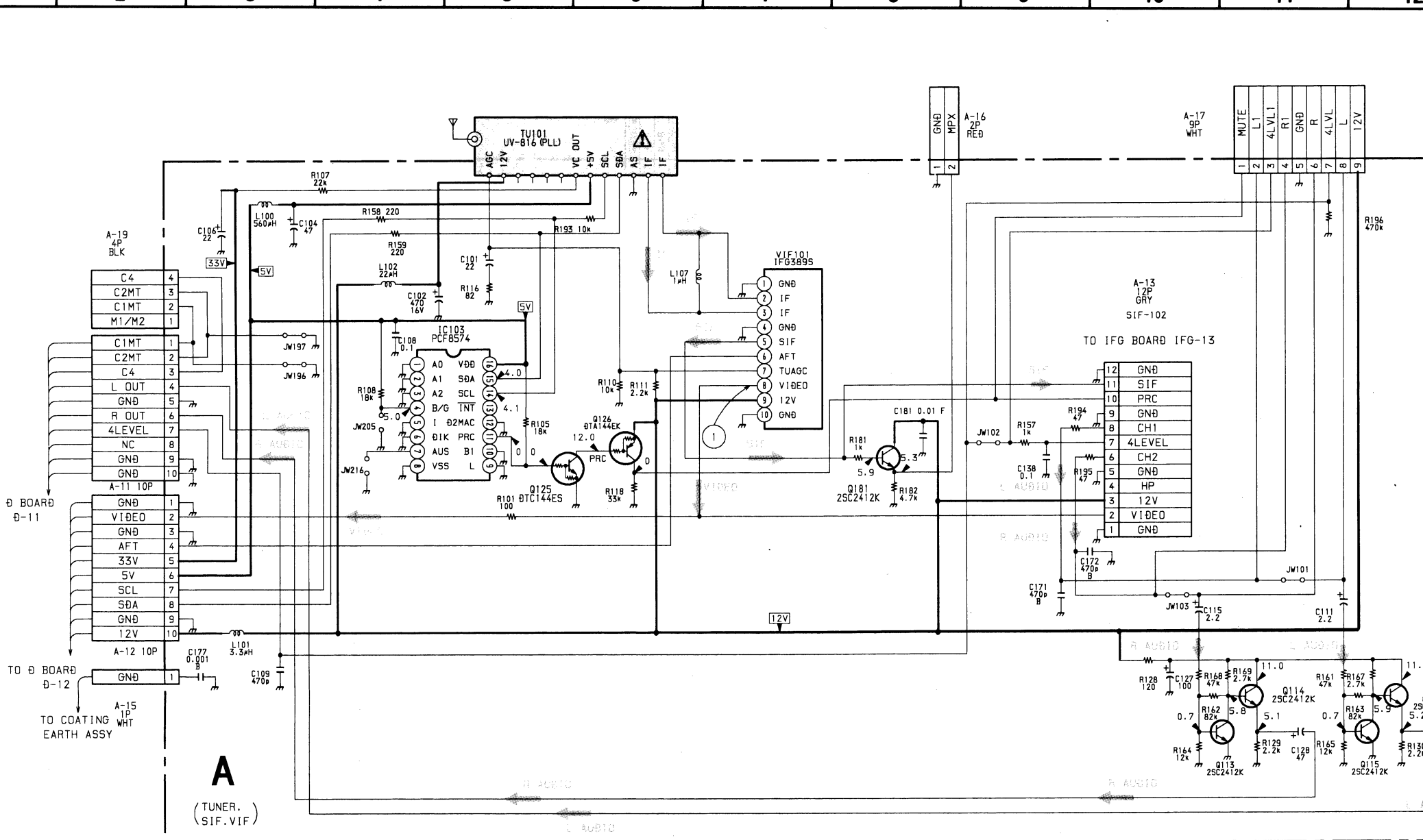


– VM Board –



– J1 Board –

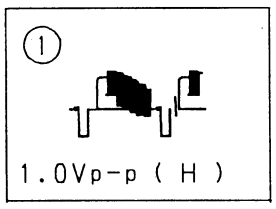



TU101
UV-816 (PLL)
AGC 12V VC OUT +5V SCL SDA AS IF IF
IC103
PCF8574
A0 A1 A2 B/G INT I Ø2MAC ØIK PRC AUS B1 L VSS VDD SDA SCL
VIF101
IFG3895
GNØ IF IF GNØ SIF AFT TUAGC VIØEO 12V GNØ
Q125 ØTC144ES
Q126 ØTA144EK
Q181 2SC2412K
Q113 2SC2412K
Q114 2SC2412K
Q115 2SC2412K
A-19 4P BLK
C4 C2MT C1MT M1/M2
A-11 10P
C1MT C2MT C4 L OUT GNØ R OUT 4LEVEL NC GNØ GNØ
TO Ø BOARØ Ø-11
A-12 10P
GNØ VIØEO GNØ AFT 33V 5V SCL SDA GNØ 12V
TO Ø BOARØ Ø-12
GNØ
TO COATING EARTH ASSY
A-15 1P WHT
A-16 2P REØ
GNØ MPX
A-17 9P WHT
MUTE L1 4LVL1 R1 GNØ R 4LVL L 12V
A-13 12P GRY
SIF-102
TO IFG BOARØ IFG-13
GNØ SIF PRC GNØ CH1 4LEVEL CH2 GNØ HP 12V VIØEO GNØ
A
(TUNER. SIF.VIF)

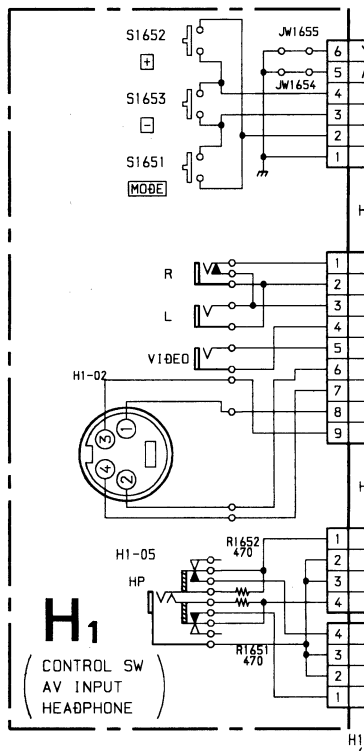
A Board

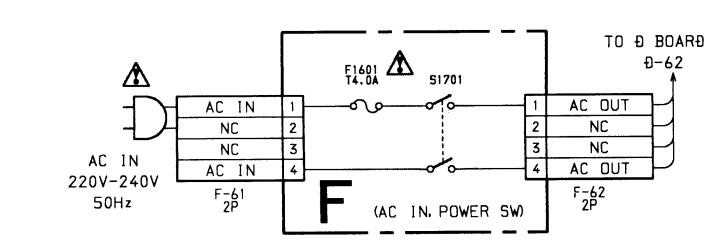
IC103	PCF8574P	EXPANDER
Q113	2SC2412K	AUDIO AMP
Q114	2SC2412K	AUDIO AMP
Q115	2SC2412K	AUDIO AMP
Q116	2SC2412K	AUDIO AMP
Q125	DTC114EK	MUTE SW
Q126	DTA114EK	MUTE SW
Q181	2SC2412K	NICAM BUFFER

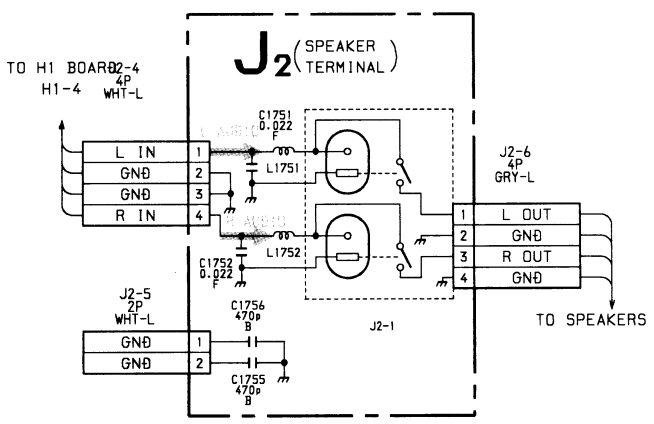
Waveforms A Board

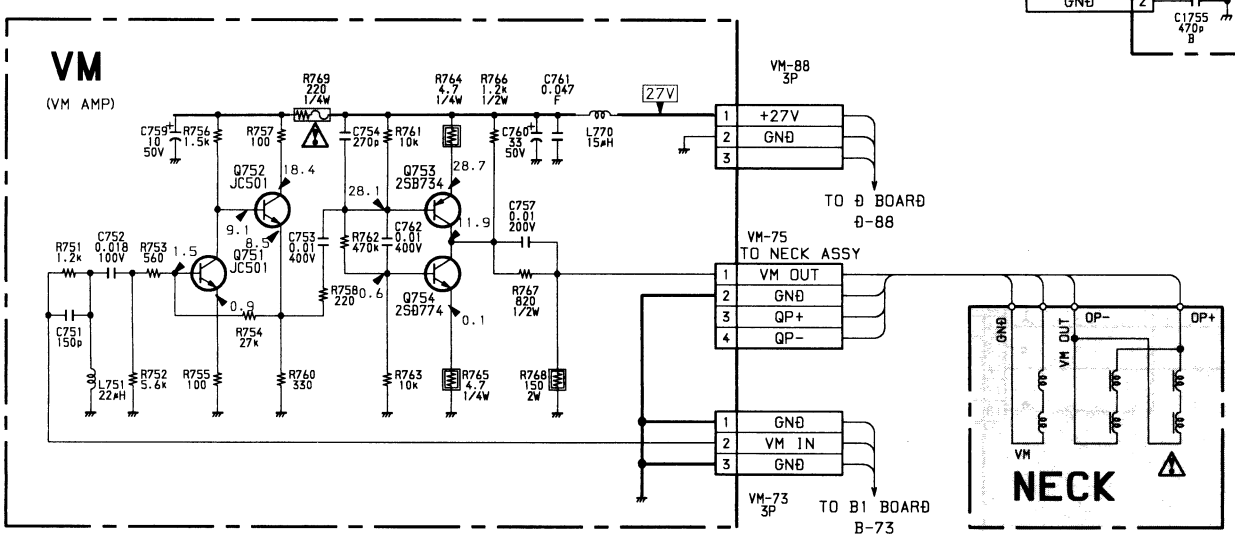


MC-Service



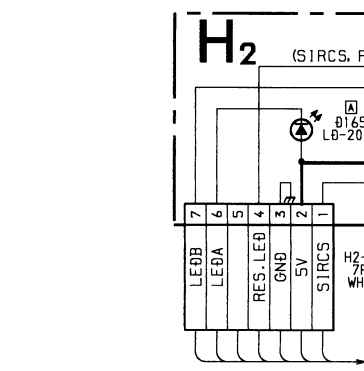






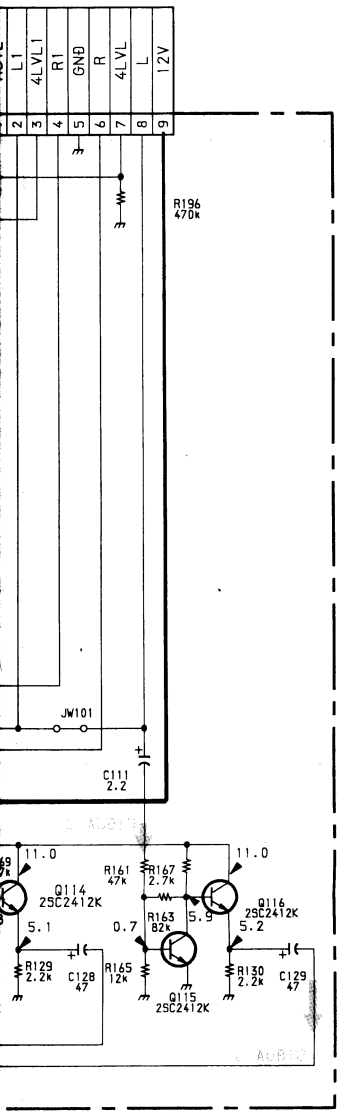
VM Board

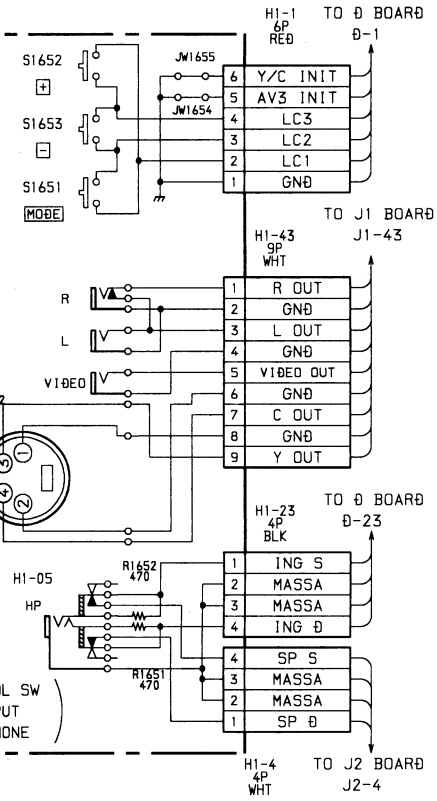
Q751	JC501	REF-AMP
Q752	JC501	REF-AMP
Q753	2SB734	PUSH-PULL OUT
Q754	2SØ774	PUSH-PULL OUT

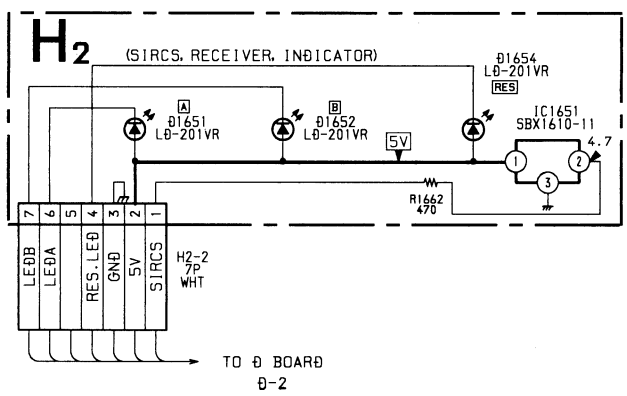


H2 Board

IC1651	SBX1610-11	INFRAR
Ø1651	LØ-201VR	AUØIO
Ø1652	LØ-201VR	AUØIO
Ø1654	LØ-201VR	RESET





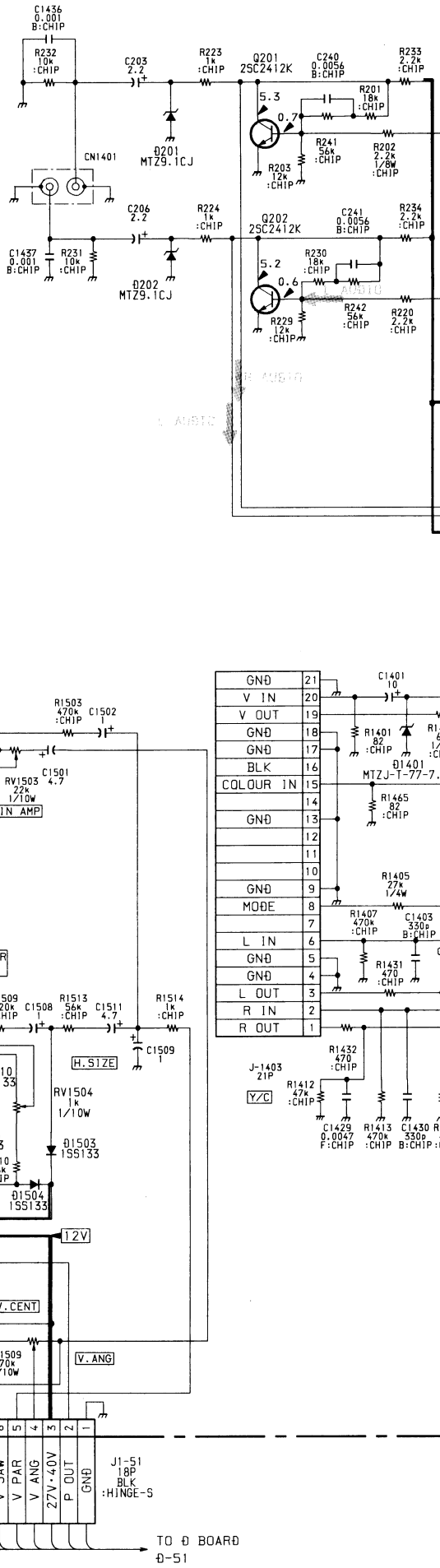


ard

	SBX1610-11	INFRARED RECIVER
	LÐ-201VR	AUÐIO CHANNEL A INÐICATOR
	LÐ-201VR	AUÐIO CHANNEL B INÐICATOR
	LÐ-201VR	RESET

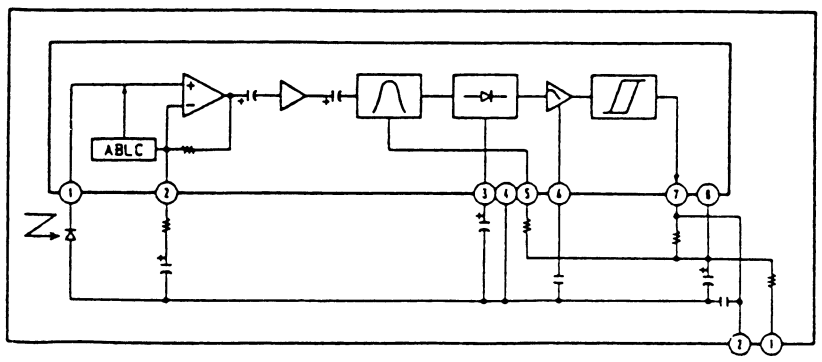
J1

(AUÐIO CONTROL
AV INPUT, Y/C INPUT,
SCART VIÐEO OUT,
EAST-WEST CORRECTION)

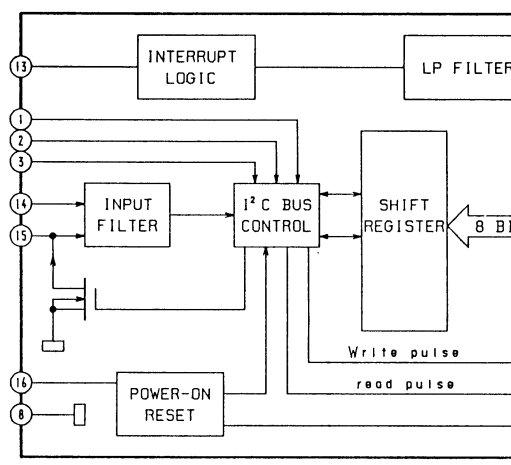


MC-Service

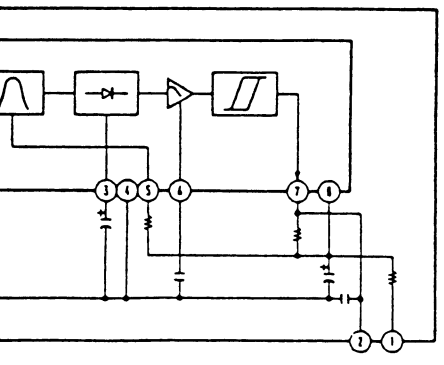
H2 Board IC1651 SBX1610-11



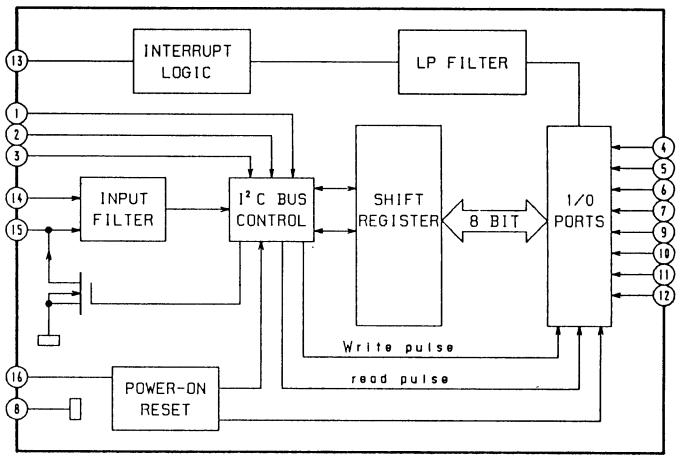
A Board IC103 PCF8574



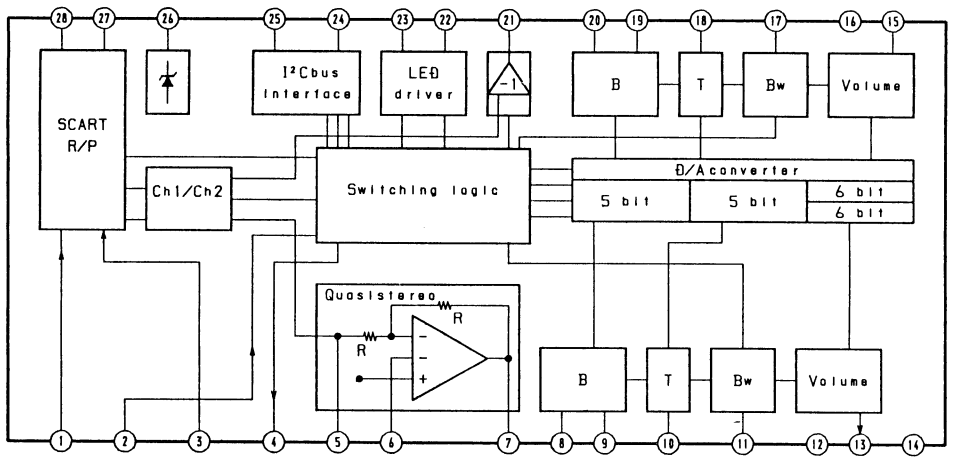
11

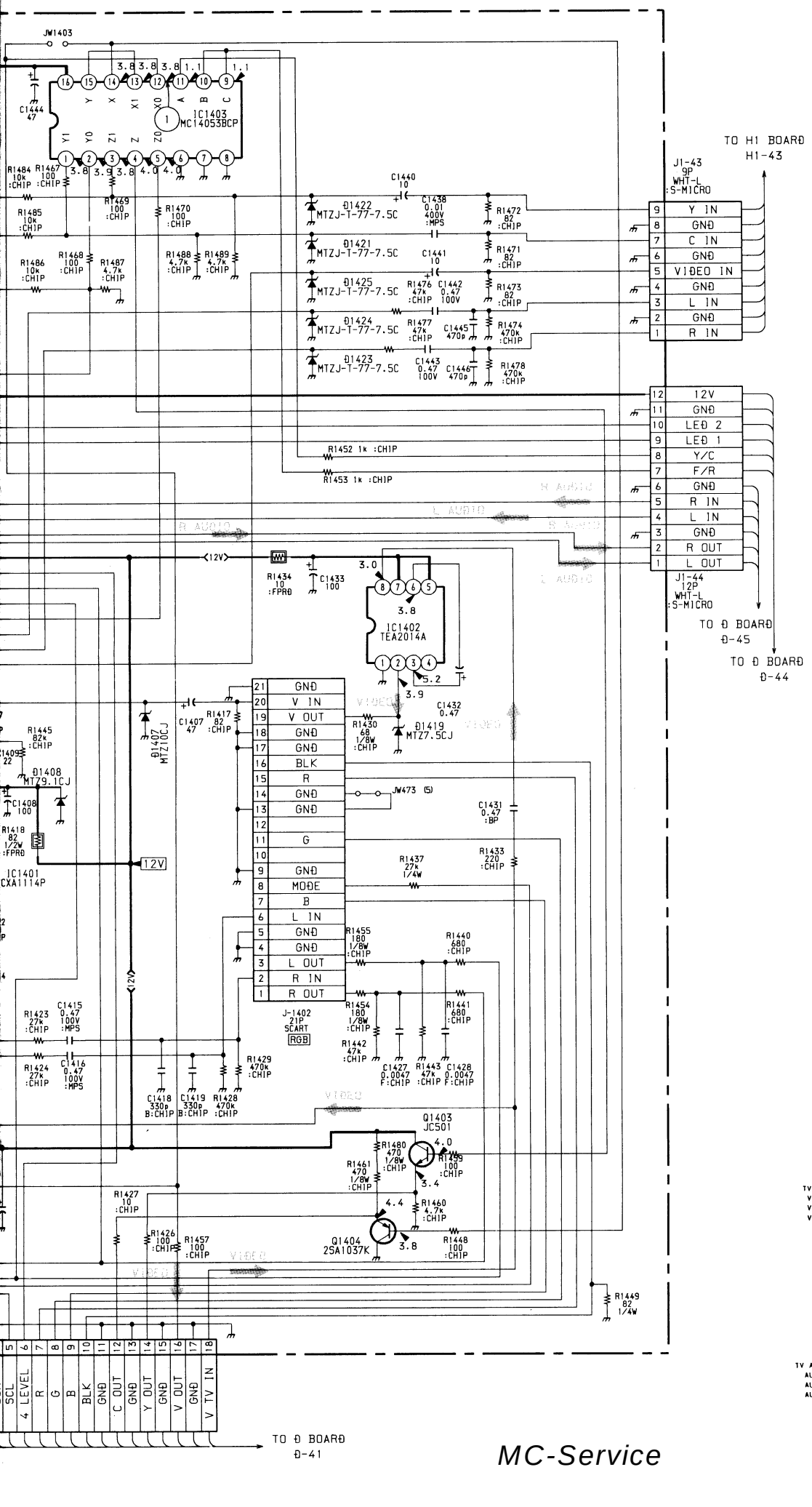


A Board IC103 PCF8574



J1 Board IC201 TDA6200





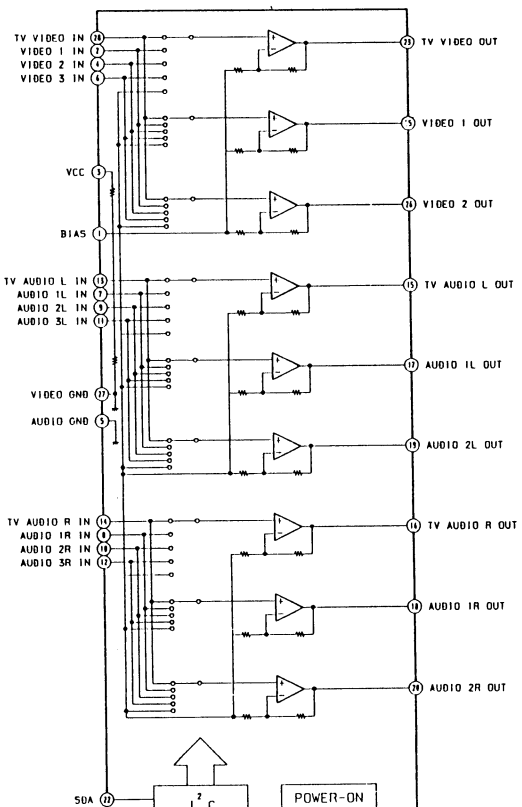
J1 Board

IC201	TDA6200	AUDIO CONTROL
IC1401	CXA1114P	AV SW
IC1402	TEA2014A	SCART VIDEO OUT
IC1403	MC14053BCP	COMPOSITE Y/C SW
IC1501	TEA2031A	EAST-WEST CORRECTION
Q201	2SC2412K	AUDIO R BUFF
Q202	2SC2412K	AUDIO L BUFF
Q1401	2SA1162G	VIDEO OUT
Q1402	2SC2412K	VIDEO OUT BUFF
Q1403	JC501	Y OUT BUFF
Q1404	2SA1037K	C OUT BUFF
D201	MTZ-9.1CJ	PROTECT
D202	MTZ-9.1CJ	PROTECT
D205	MTZ-7.5CJ	PROTECT
D206	MTZ-7.5CJ	PROTECT
D1401	MTZ-7.5CJ	PROTECT
D1403	MTZ-7.5CJ	PROTECT
D1404	MTZ-7.5CJ	PROTECT
D1405	MTZ-7.5CJ	PROTECT
D1406	MTZ-7.5CJ	PROTECT
D1407	MTZ-10CJ	PROTECT
D1408	MTZ-9.1CJ	REG
D1409	MTZ-9.1CJ	PROTECT
D1410	MTZ-9.1CJ	PROTECT
D1415	MTZ-7.5CJ	PROTECT
D1418	MTZ-7.5CJ	PROTECT
D1419	MTZ-7.5CJ	PROTECT
D1420	MTZ-7.5CJ	PROTECT
D1421	MTZ-7.5CJ	PROTECT
D1422	MTZ-7.5CJ	PROTECT
D1423	MTZ-7.5CJ	PROTECT
D1424	MTZ-7.5CJ	PROTECT
D1425	MTZ-7.5CJ	PROTECT
D1426	MTZ-7.5CJ	PROTECT
D1501	RGP10G	PROTECT
D1502	1SS133	DE COUPLING H SIZE
D1503	1SS133	CLIPPING V PARABORA
D1504	1SS133	CLIPPING H PULSE
D1505	1SS133	REG
D1506	HZS36NB4	PROTECT
D1507	1SS133	PROTECT
D1510	1SS133	REG

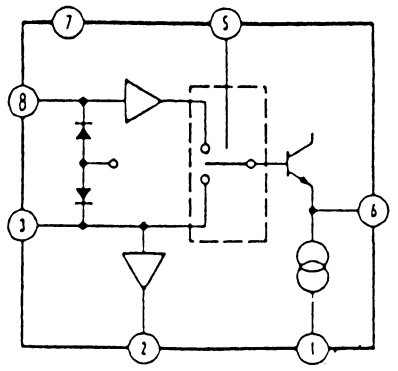
Waveforms J1 Board

①	②	③
1.0Vp-p (H)	1.0Vp-p (H)	2.0Vp-p (H)

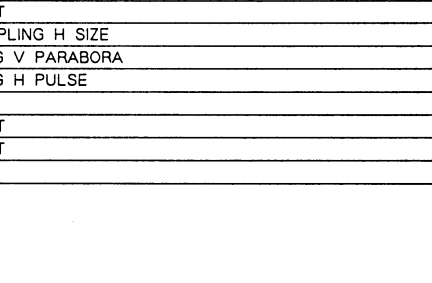
J1 Board IC1401 CXA1114P



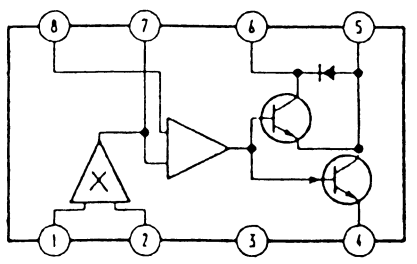
J1 Board IC402 TEA2014A



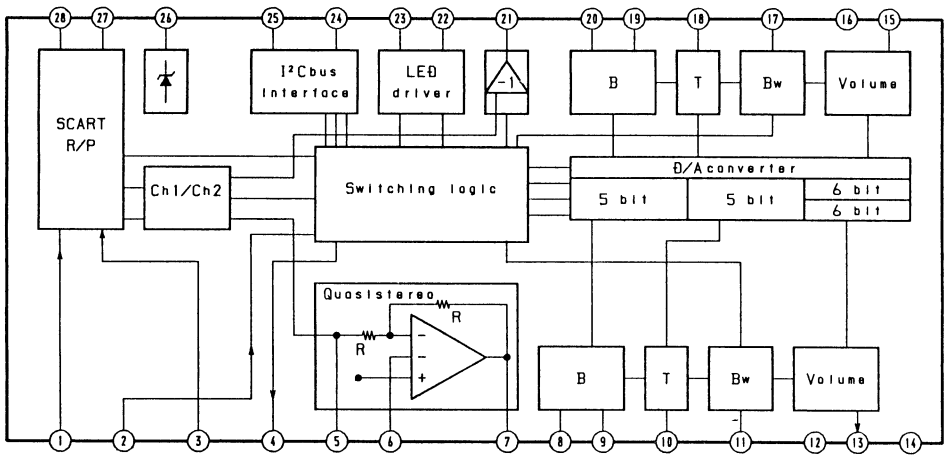
J1 Board IC1403 MC14053BCP



J1 Board IC1501 TEA2031A

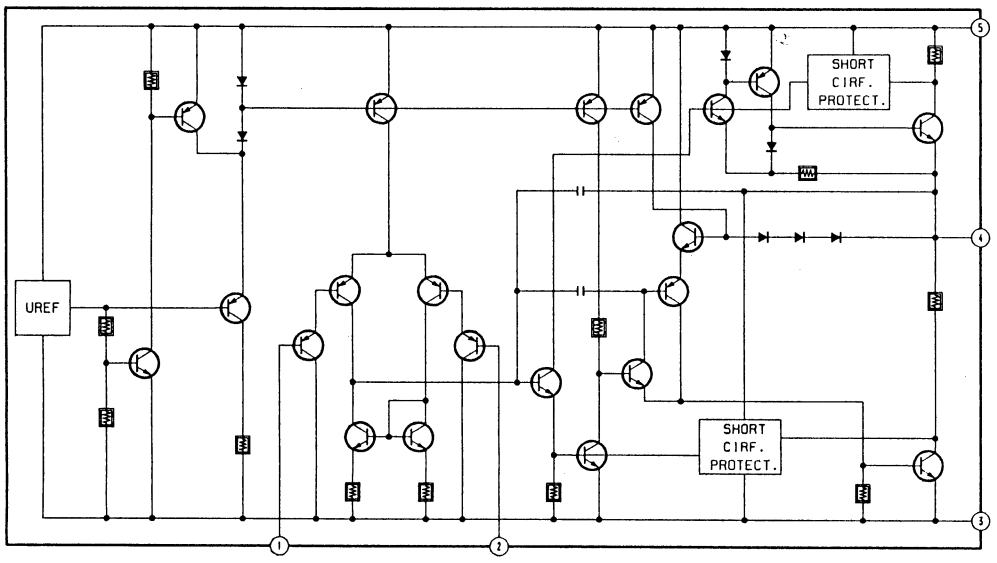


J1 Board IC201 TDA6200

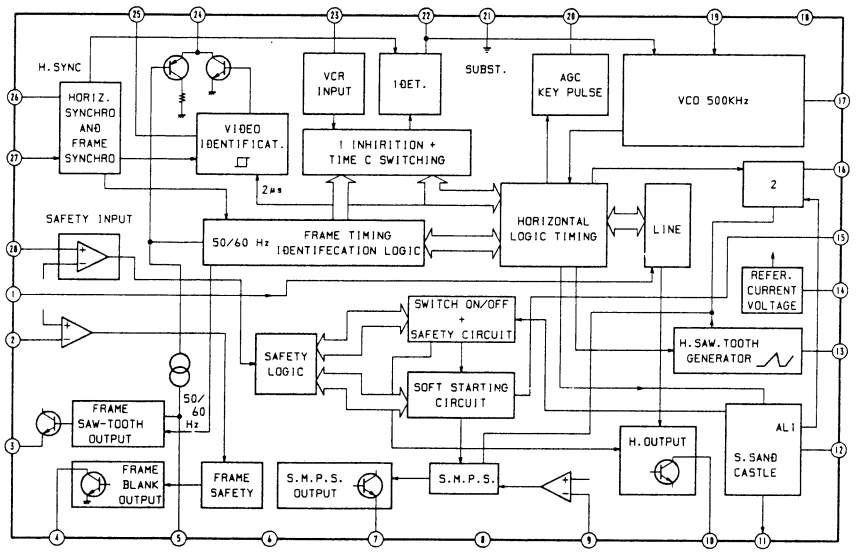


MC-Service

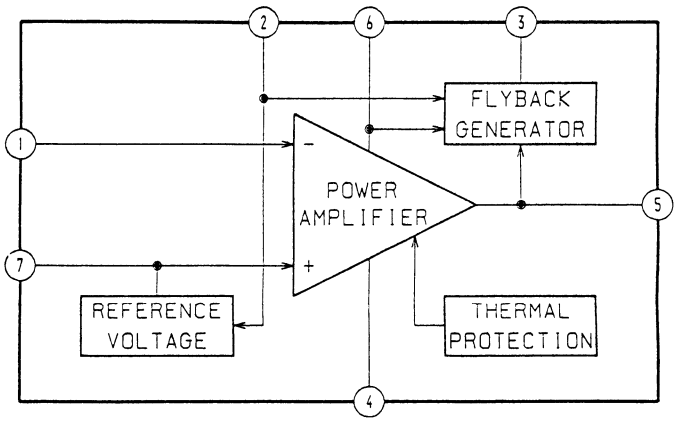
D Board IC251/261TDA2050



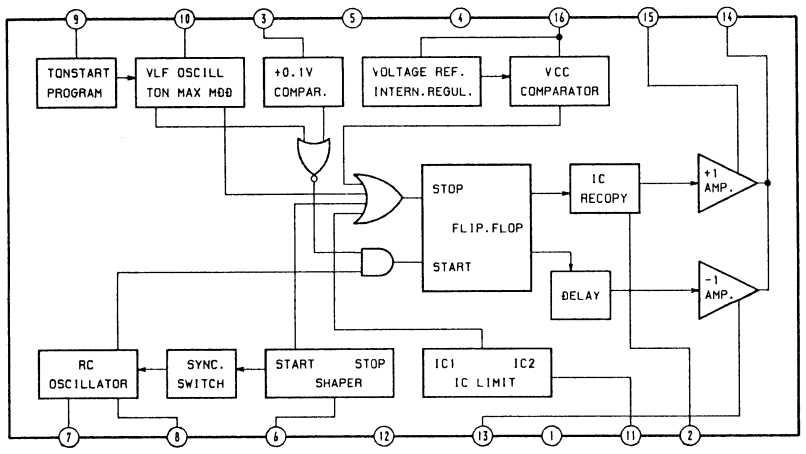
D Board IC501 TEA2028B



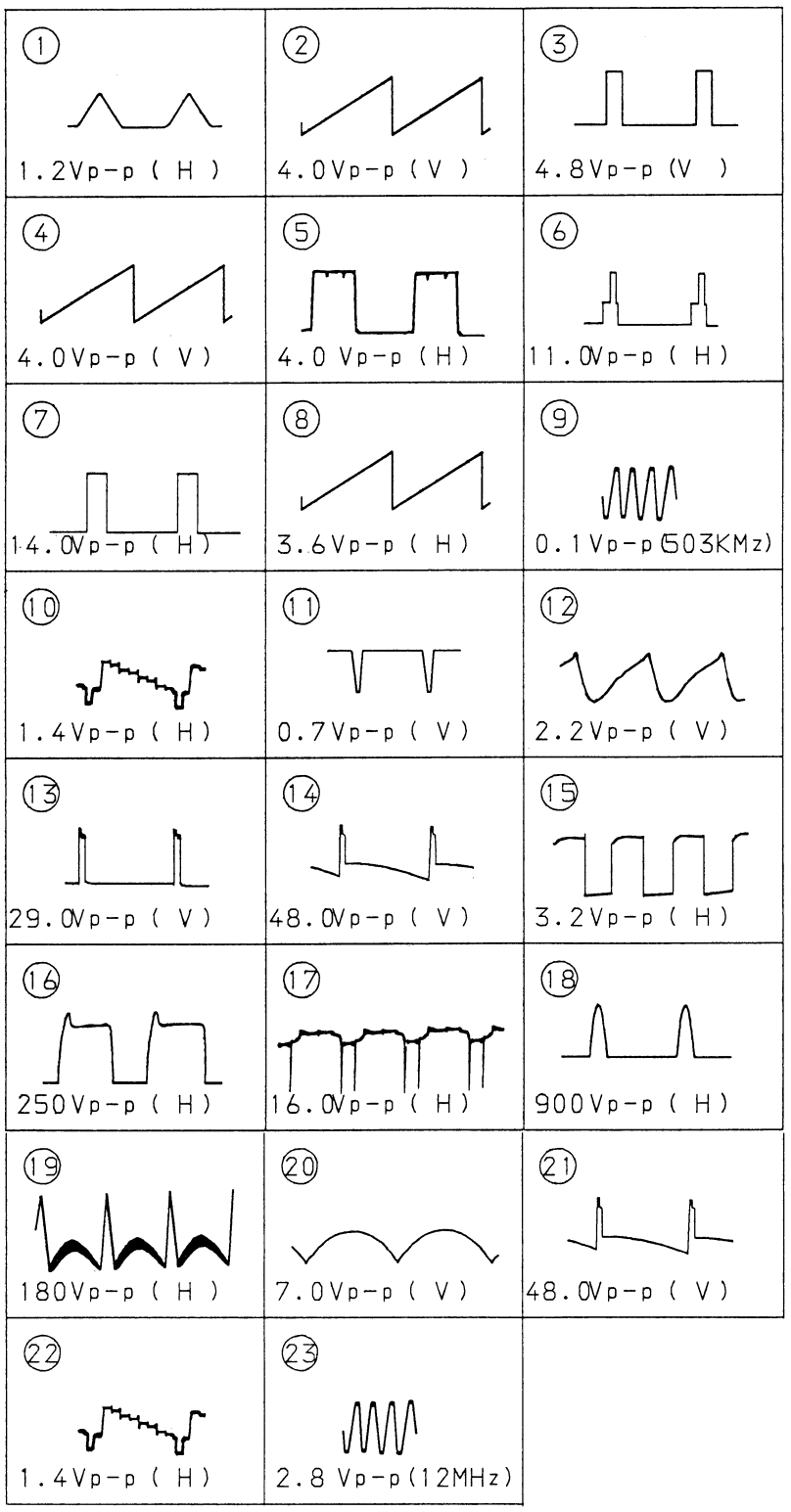
D Board IC502 TDA8170



D Board IC601 TEA2260



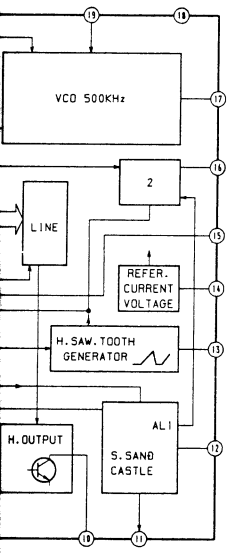
D Board



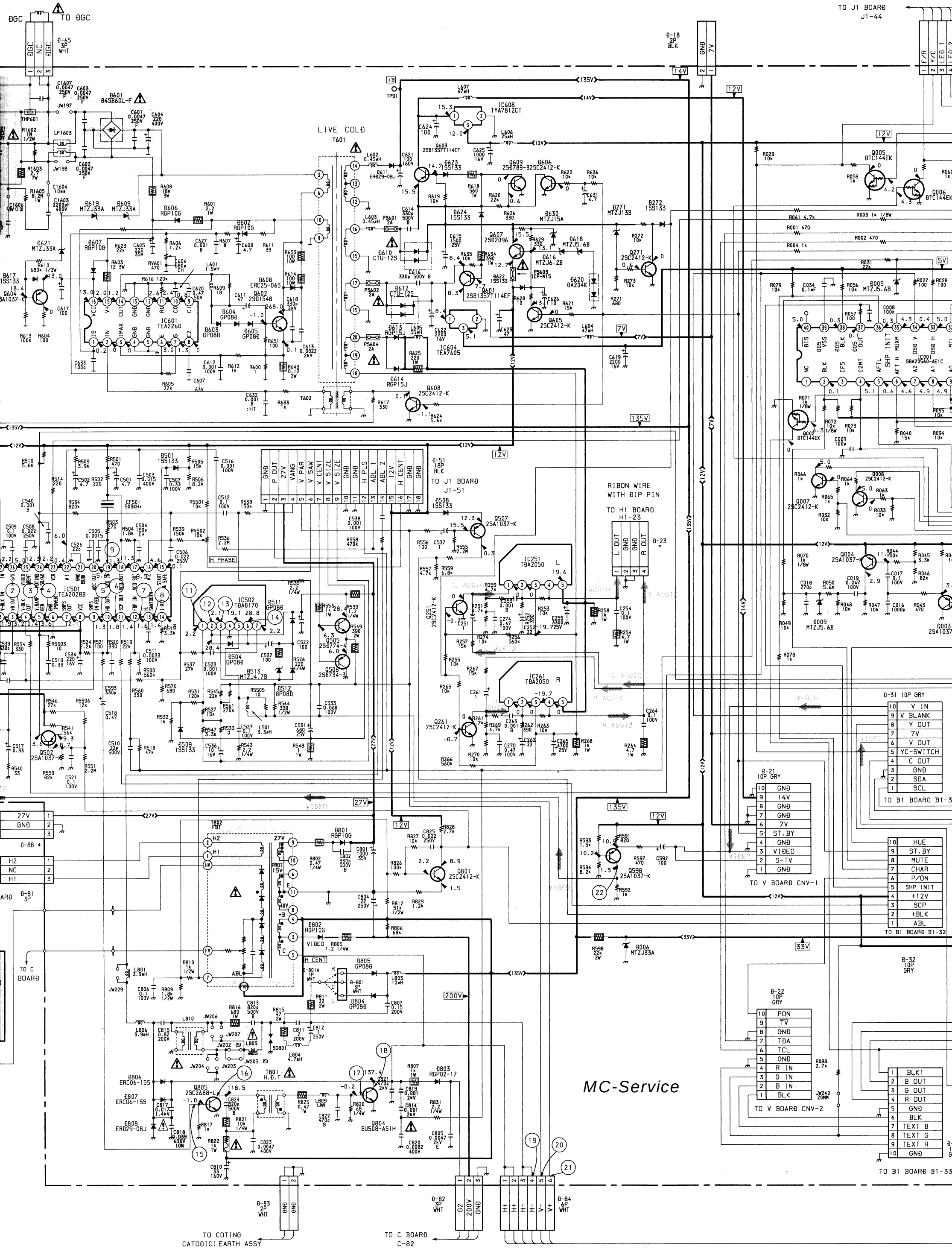
D Board

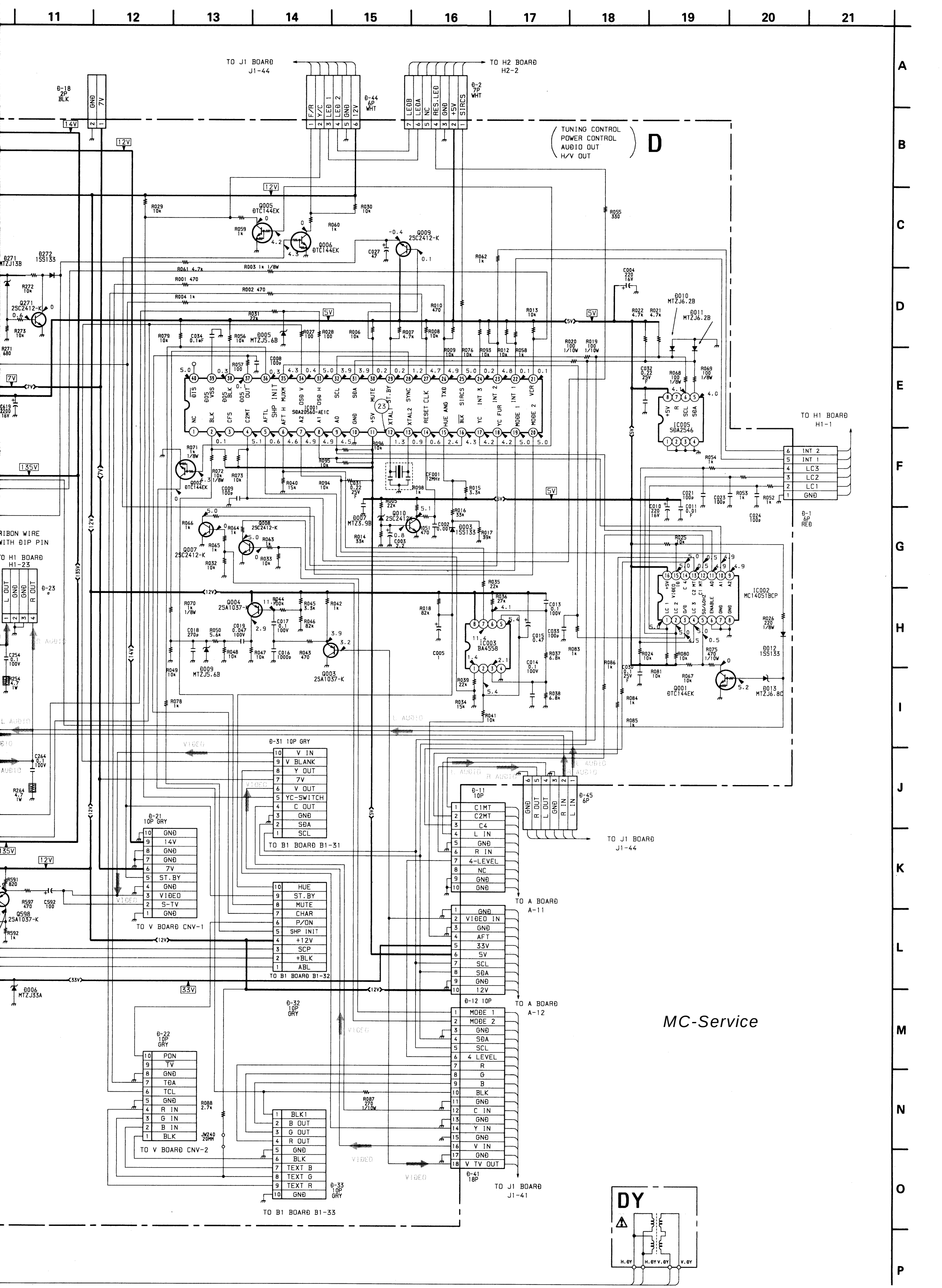
IC001	SDA20560-AEIC	TUNING CTL
IC002	MC14051BCP	ON SCREEN DISPLAY
IC003	BA4558	AFT COMPARATOR
IC005	SDA2546	MY MEMORY
IC251	TDA2050	AUDIO OUT (L)
IC261	TDA2050	AUDIO OUT (R)
IC501	TEA2028B	DEFLECTION PROCESSOR
IC502	TDA8170	V OUT
IC601	TEA2260	PRIMARY SMRS CTL
IC604	TEA7605	+5V REG
IC608	TYA7812CT	+12V REG
Q001	DTC144EK	50/60Hz SW
Q002	DTA144EK	BLK SW
Q003	2SA1037-K	SYNC SEPARATOR
Q004	2SA1037-K	SYNC SEPARATOR
Q005	DTC144EK	Y/C SW
Q006	DTC144EK	FRONT/REAR SW
Q007	2SC2412-K	MODE 2 SWITCH
Q008	2SC2412-K	MODE 1 SWITCH
Q009	2SC2412-K	MUTE SW
Q010	2SC2412-K	RESET
Q251	2SC2412-K	AUDIO MUTE
Q261	2SC2412-K	AUDIO MUTE
Q271	2SC2412-K	VOLTAGE DETECT
Q502	2SA1037-K	CONSTANT CURRENT SOURCE
Q505	2SD774	V CENT
Q506	2SB734	V CENT
Q507	2SA1037-K	CANAL +BLK
Q598	2SA1037-K	VIDEO AMP
Q601	2SB1357T114EF	STBY SW
Q602	2SD1548	REG OUT
Q603	2SB1357T114EF	STBY SW
Q604	2SA1037-K	FAST ON/OFF
Q605	2SC2412-K	STBY SW
Q606	2SC2412-K	STBY SW
Q607	2SD2096-EF	+12V REG
Q608	2SC2412K	STBY SW
Q609	2SD789-3	STBY SW
Q801	2SC2412-K	ABL AMP
Q804	BU508ASIH	H OUT
Q805	2SC2688	H DRIVER

D003	1SS133	HUE CTL
D005	MTZJ5.6B	PROT
D006	MTZJ33A	VC VOLTAGE REGULATION
D007	MTZJ3.9B	PLOT RESET
D009	MTZJ5.6B	CLIPPING SYNC LEVEL
D010	MTZJ6.2B	PROT
D011	MTZJ6.2B	PROT
D012	1SS133	PROT
D013	MTZJ6.8C	PROT
D271	MTZJ13B	VOLTAGE DETECT
D272	1SS133	DECOUPING MUTE AUDIO
D501	1SS133	START
D504	GP08D	V PULSE OUT
D506	DA204K	CURRENT
D508	1SS133	CANAL +BLK LEVEL
D509	1SS133	V LIN
D511	GP08D	PROT
D512	GP08D	PROT
D513	MTZJ4.7B	PROT
D601	D4SB60L-F	AC RECT
D602	RGP10G	REF RECT
D603	GP08D	SMPS DRIVE 1
D604	GP08D	SMPS DRIVE 2
D605	GP08D	SMPS DRIVE 3
D606	RGP10G	+12V RECT
D607	RGP10G	REF RECT
D608	ERC25-06S	PLUSE CLIPPER
D609	MTZJ33A	FAST ON/OFF
D610	CTU-12S	+14V RECT
D611	ERD29-08J	+135VRECT
D612	CTU-12S	+7V RECT
D613	RGP15J	AF V RECT-1
D614	RGP15J	AF V RECT-2
D616	MTZJ6.2B	+12V REG
D617	1SS133	PROT
D618	MTZJ5.6B	+12V REF
D619	MTZJ33A	FAST ON/OFF-2
D620	DA204K	+12V REF
D621	MTZJ33A	FAST ON/OFF-3
D622	1SS133	PROT
D623	1SS133	DECOUPING STBY
D624	1SS133	DECOUPING STBY
D630	MTZJ15A	+12V RECT
D801	RGP10G	+27V RECT
D802	RGP10G	+200V RECT
D803	RGP02-17	G2 RECT
D804	GP08D	H CENTER-1
D805	GP08D	H CENTER-2
D806	ERC06-15S	H DAMPER-1
D807	ERC06-15S	H DAMPER-2
D808	ERD29-08J	PIN DAMPER



20560-AEIC	TUNING CTL
4051BCP	ON SCREEN DISPLAY
558	AFT COMPARATOR
2546	MY MEMORY
2050	AUDIO OUT (L)
2050	AUDIO OUT (R)
2028B	DEFLECTION PROCESSOR
8170	V OUT
2260	PRIMARY SMRS CTL
7605	+5V REG
7812CT	+12V REG
144EK	50/60Hz SW
144EK	BLK SW
1037-K	SYNC SEPARATOR
1037-K	SYNC SEPARATOR
144EK	Y/C SW
144EK	FRONT/REAR SW
2412-K	MODE 2 SWITCH
2412-K	MODE 1 SWITCH
2412-K	MUTE SW
2412-K	RESET
2412-K	AUDIO MUTE
2412-K	AUDIO MUTE
2412-K	VOLTAGE DETECT
1037-K	CONSTANT CURRENT SOURCE
774	V CENT
734	V CENT
1037-K	CANAL +BLK
1037-K	VIDEO AMP
357T114EF	STBY SW
1548	REG OUT
357T114EF	STBY SW
1037-K	FAST ON/OFF
2412-K	STBY SW
2412-K	STBY SW
2096-EF	+12V REG
2412K	STBY SW
789-3	STBY SW
2412-K	ABL AMP
08ASIH	H OUT
2688	H DRIVER
S133	HUE CTL
ZJ5.6B	PROT
ZJ33A	VC VOLTAGE REGULATION
ZJ3.9B	PLOT RESET
ZJ5.6B	CLIPPING SYNC LEVEL
ZJ6.2B	PROT
ZJ6.2B	PROT
S133	PROT
ZJ6.8C	PROT
ZJ13B	VOLTAGE DETECT
S133	DECOUPING MUTE AUDIO
S133	START
08D	V PULSE OUT
204K	CURRENT
S133	CANAL +BLK LEVEL
S133	V LIN
08D	PROT
08D	PROT
ZJ4.7B	PROT
SB60L-F	AC RECT
P10G	REF RECT
08D	SMPS DRIVE 1
08D	SMPS DRIVE 2
08D	SMPS DRIVE 3
P10G	+12V RECT
P10G	REF RECT
C25-06S	PLUSE CLIPPER
ZJ33A	FAST ON/OFF
U-12S	+14V RECT
D29-08J	+135VRECT
U-12S	+7V RECT
P15J	AF V RECT-1
P15J	AF V RECT-2
ZJ6.2B	+12V REG
S133	PROT
ZJ5.6B	+12V REF
ZJ33A	FAST ON/OFF-2
204K	+12V REF
ZJ33A	FAST ON/OFF-3
S133	PROT
S133	DECOUPING STBY
S133	DECOUPING STBY
ZJ15A	+12V RECT
P10G	+27V RECT
P10G	+200V RECT
P02-17	G2 RECT
08D	H CENTER-1
08D	H CENTER-2
C06-15S	H DAMPER-1
C06-15S	H DAMPER-2
D29-08J	PIN DAMPER

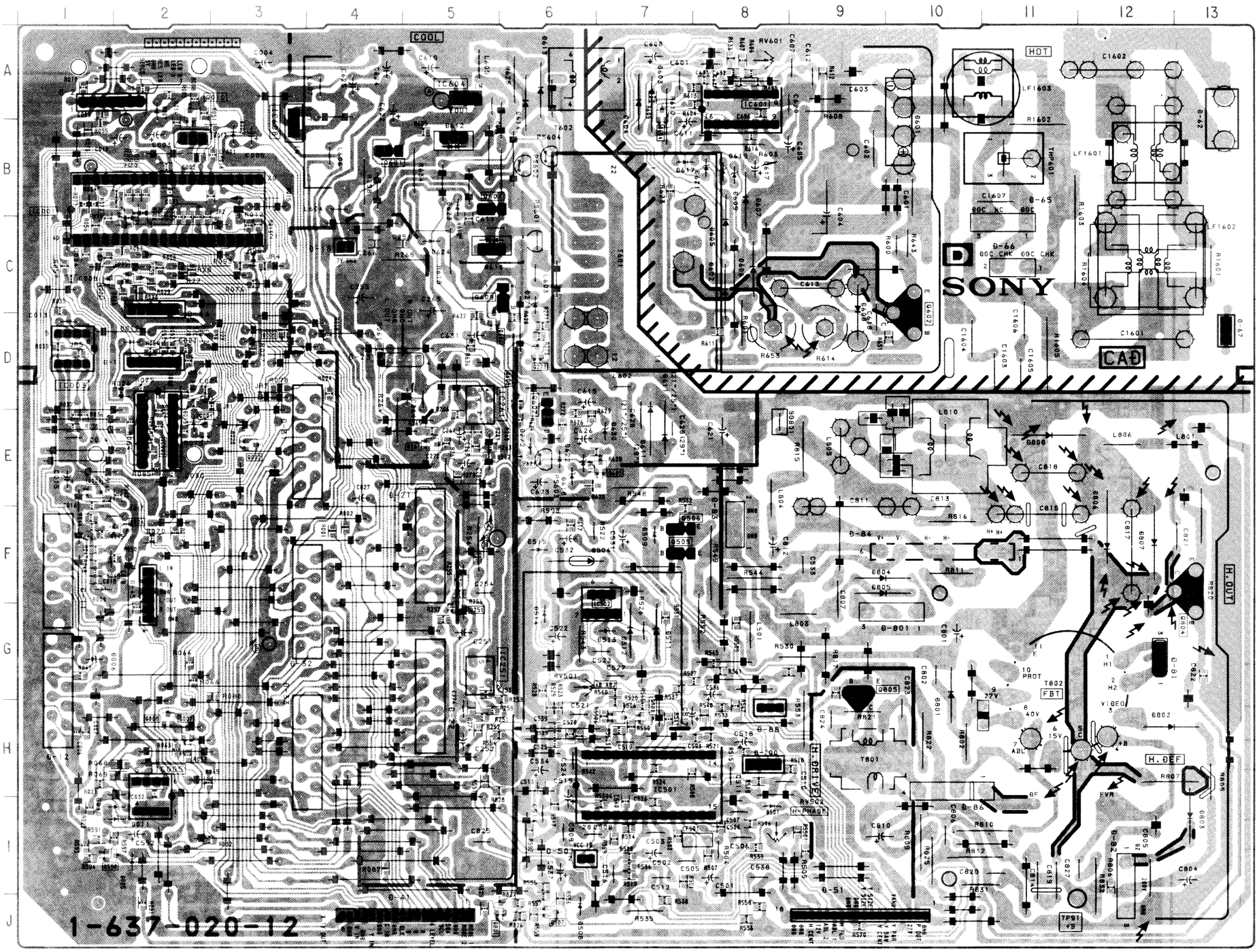

ĐGC
TO ĐGC
Đ-65 3P WHT
TO J1 BOARĐ J1-44
Đ-18 2P BLK
LIVE COLĐ
T601
IC608 TYA7812CT
IC604 TEA7605
IC601 TEA2260
IC501 TEA2028B
IC502 TĐA8170
IC251 TĐA2050 L
IC261 TĐA2050 R
IC001 SBA20560-AE1C
Đ-51 18P BLK
TO J1 BOARĐ J1-51
RIBON WIRE WITH ĐIP PIN
TO H1 BOARĐ H1-23
Đ-23
H PHASE
Đ-31 10P GRY
Đ-21 10P GRY
TO V BOARĐ CNV-1
TO V BOARĐ CNV-2
TO B1 BOARĐ B1-32
TO B1 BOARĐ B1-33
Đ-22 10P GRY
Đ-32 10P GRY
Đ-88 *
Đ-81 3P
TO C BOARĐ
Đ-83 2P WHT
Đ-82 3P WHT
Đ-84 6P WHT
TO COTING CATOĐICI EARTH ASSY
TO C BOARĐ C-82
MC-Service


TO J1 BOARD
J1-44
TO H2 BOARD
H2-2
D-18
2P
BLK
GND
7V
D-44
6P
WHT
F/R
Y/C
LED 1
LED 2
GND
12V
D-2
7P
WHT
LEDB
LEDA
NC
RES.LED
GND
+5V
SIRCS
TUNING CONTROL
POWER CONTROL
AUDIO OUT
H/V OUT
D
14V
12V
135V
7V
5V
33V
D271
MTZJ13B
D272
1SS133
Q271
2SC2412-K
Q005
DTC144EK
Q006
DTC144EK
Q009
2SC2412-K
Q007
2SC2412-K
Q008
2SC2412-K
Q004
2SA1037-K
Q003
2SA1037-K
Q598
2SA1037-K
Q002
DTC144EK
Q010
2SC2412-K
Q001
DTC144EK
D005
MTZJ5.6B
D009
MTZJ5.6B
D007
MTZ3.9B
D003
1SS133
D006
MTZJ33A
D010
MTZJ6.2B
D011
MTZJ6.2B
D012
1SS133
D013
MTZJ6.8C
IC001
S8A2056D-AE1C
IC002
MC14051BCP
IC003
BA4558
IC005
S8A2546
CF001
12MHz
R029 10k
R030 10k
R059 1k
R060 1k
R055 330
R062 1k
R061 4.7k
R003 1k 1/8W
R001 470
R002 470
R004 1k
R031 22k
R010 470
R013 10k
R272 10k
R273 10k
R271 680
R079 10k
C034 0.1mF
R056 10k
R027 100
R028 100
R006 10k
R007 4.7k
R008 10k
R009 10k
R076 10k
R093 10k
R012 10k
R058 1k
R020 100 1/10W
R019 100 1/10W
C004 220 16V
R022 4.7k
R021 4.7k
C032 0.22 25V F
R068 100 1/8W
R069 100 1/8W
R057 100
C008 100p
R071 1k 1/8W
R072 10k 1/8W
R073 10k
R040 15k
R094 10k
R095 10k
R096 10k
C009 100p
C031 0.22 25V F
R098 1k
R015 3.3k
R005 22k
R016 33k
R051 470
C002 0.001
R017 39k
R014 33k
C003 2.2
R066 1k
R064 1k
R065 1k
R063 1k
R032 10k
R033 10k
R070 1k 1/8W
R044 100k
R045 3.3k
R042 1k
C017 0.1 100V
R046 82k
C018 270p
R050 5.6k
C019 0.047 100V
R048 10k
R047 10k
C016 1000p
R043 470
R049 10k
R078 1k
R018 82k
C005 1
R035 22k
R036 27k
C013 0.1 100V
C015 0.47
R037 6.8k
R083 1k
C033 100p
C014 0.1 100V
R038 6.8k
R039 22k
R034 15k
R041 10k
R086 1k
R084 1k
R085 1k
C030 0.1 25V F
R081 10k
R067 10k
R024 10k
R080 10k
R075 470 1/10W
R026 220 1/8W
R025 10k
R054 1k
C021 100p
C023 100p
R053 1k
R052 1k
C024 100p
C010 220 16V
C011 0.01 F
D-1
6P
RED
INT 2
INT 1
LC3
LC2
LC1
GND
TO H1 BOARD
H1-1
TO H1 BOARD
H1-23
D-23
L OUT
GND
GND
R OUT
R AUDIO
L AUDIO
C254 0.1 100V
R254 4.7 1W
C264 0.1 100V
R264 4.7 1W
C619 2200 16V
R591 820
R597 470
C592 100
R592 1k
VIDEO
D-31 10P GRY
V IN
V BLANK
Y OUT
7V
V OUT
YC-SWITCH
C OUT
GND
SDA
SCL
TO B1 BOARD B1-31
D-21
10P GRY
GND
14V
GND
GND
7V
ST.BY
GND
VIDEO
S-TV
GND
TO V BOARD CNV-1
HUE
ST.BY
MUTE
CHAR
P/ON
SHP INIT
+12V
SCP
+BLK
ABL
TO B1 BOARD B1-32
D-32
10P
GRY
D-22
10P
GRY
PON
TV
GND
TDA
TCL
GND
R IN
G IN
B IN
BLK
TO V BOARD CNV-2
R088
2.7k
JW240
20MM
BLK1
B OUT
G OUT
R OUT
GND
BLK
TEXT B
TEXT G
TEXT R
GND
D-33
10P
GRY
TO B1 BOARD B1-33
R087
270
1/10W
D-11
10P
C1MT
C2MT
C4
L IN
GND
R IN
4-LEVEL
NC
GND
GND
TO A BOARD
A-11
GND
VIDEO IN
GND
AFT
33V
5V
SCL
SDA
GND
12V
D-12 10P
TO A BOARD
A-12
MODE 1
MODE 2
GND
SDA
SCL
4 LEVEL
R
G
B
BLK
GND
C IN
GND
Y IN
GND
V IN
GND
V TV OUT
D-41
18P
TO J1 BOARD
J1-41
D-45
6P
GND
R OUT
L OUT
GND
R IN
L IN
TO J1 BOARD
J1-44
DY
H.DY
H.DY V.DY
V.DY

MC-Service

D [TUNING CONTROL POWER CONTROL AUDIO OUT H/V OUT]

– D Board –



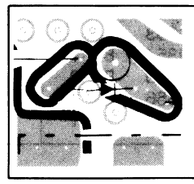
IC	
IC001	B – 2
IC002	E – 2
IC003	D – 1
IC005	H – 2
IC251	G – 5
IC261	D – 5
IC501	H – 7
IC502	G – 7
IC601	A – 8
IC604	A – 5
IC608	B – 3

TRANSISTOR	
Q001	E – 2
Q002	E – 3
Q003	E – 1
Q004	F – 2
Q005	C – 2
Q006	C – 1
Q007	H – 2
Q008	H – 2
Q009	D – 3
Q010	A – 2
Q251	G – 5
Q261	E – 5
Q271	D – 6
Q502	H – 7
Q505	F – 7
Q506	F – 7
Q507	J – 6
Q598	I – 2
Q601	B – 4
Q602	C – 10
Q603	B – 5
Q604	A – 7
Q605	E – 7
Q606	D – 5
Q607	D – 6
Q608	D – 6
Q609	C – 5
Q801	J – 6
Q804	G – 13
Q805	G – 9

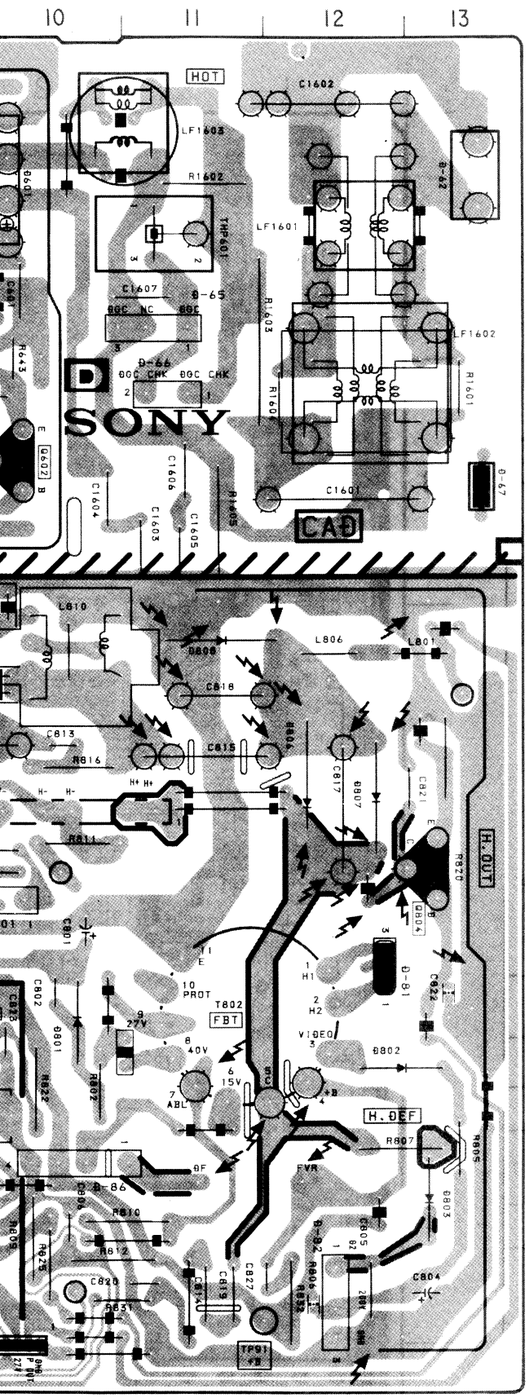
DIODE	
D003	B – 3
D005	I – 2
D006	G – 1
D007	B – 2
D009	F – 1
D010	I – 2
D011	I – 2
D012	D – 2
D013	E – 2
D271	C – 6
D272	E – 6
D501	I – 8
D504	F – 6
D508	J – 6
D509	F – 7
D511	G – 7
D512	G – 7
D513	G – 7
D514	G – 6
D515	F – 6
D601	B – 10
D602	C – 8
D603	A – 7
D604	A – 7
D605	C – 8
D606	C – 8
D607	B – 8
D608	C – 9
D609	B – 8
D610	C – 5
D611	E – 7
D612	B – 5
D613	A – 6
D614	A – 6
D616	E – 6
D617	B – 7
D618	E – 6
D619	B – 8
D620	E – 6
D621	B – 8
D622	E – 6
D623	B – 5
D624	C – 5
D630	E – 7
D801	G – 10
D802	H – 12
D803	I – 13
D804	F – 9
D805	F – 9
D806	F – 12
D807	F – 12
D808	E – 11

TP	
TP91 (+ B)	J – 11

VARIABLE RESISTOR	
RV501	G – 6
RV502	I – 8
RV601	A – 8



NOTE:
The circuit indica
600 Vp-p. Care mu
inspection or repai



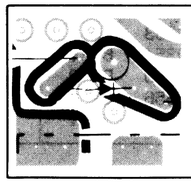
IC	
IC001	B – 2
IC002	E – 2
IC003	D – 1
IC005	H – 2
IC251	G – 5
IC261	D – 5
IC501	H – 7
IC502	G – 7
IC601	A – 8
IC604	A – 5
IC608	B – 3

TRANSISTOR	
Q001	E – 2
Q002	E – 3
Q003	E – 1
Q004	F – 2
Q005	C – 2
Q006	C – 1
Q007	H – 2
Q008	H – 2
Q009	D – 3
Q010	A – 2
Q251	G – 5
Q261	E – 5
Q271	D – 6
Q502	H – 7
Q505	F – 7
Q506	F – 7
Q507	J – 6
Q598	I – 2
Q601	B – 4
Q602	C – 10
Q603	B – 5
Q604	A – 7
Q605	E – 7
Q606	D – 5
Q607	D – 6
Q608	D – 6
Q609	C – 5
Q801	J – 6
Q804	G – 13
Q805	G – 9

DIODE	
D003	B – 3
D005	I – 2
D006	G – 1
D007	B – 2
D009	F – 1
D010	I – 2
D011	I – 2
D012	D – 2
D013	E – 2
D271	C – 6
D272	E – 6
D501	I – 8
D504	F – 6
D508	J – 6
D509	F – 7
D511	G – 7
D512	G – 7
D513	G – 7
D514	G – 6
D515	F – 6
D601	B – 10
D602	C – 8
D603	A – 7
D604	A – 7
D605	C – 8
D606	C – 8
D607	B – 8
D608	C – 9
D609	B – 8
D610	C – 5
D611	E – 7
D612	B – 5
D613	A – 6
D614	A – 6
D616	E – 6
D617	B – 7
D618	E – 6
D619	B – 8
D620	E – 6
D621	B – 8
D622	E – 6
D623	B – 5
D624	C – 5
D630	E – 7
D801	G – 10
D802	H – 12
D803	I – 13
D804	F – 9
D805	F – 9
D806	F – 12
D807	F – 12
D808	E – 11

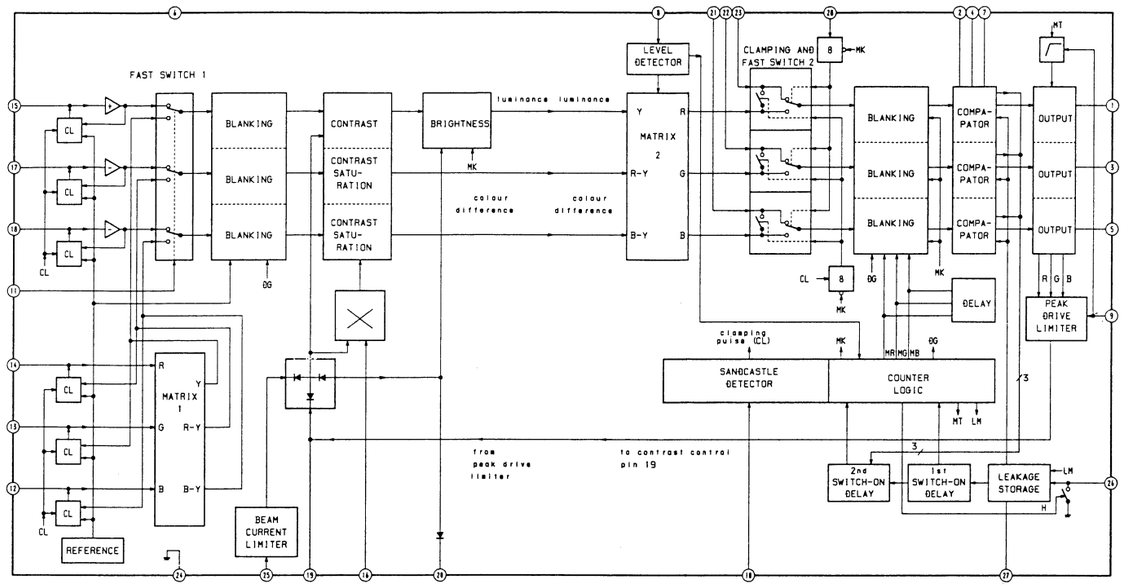
TP	
TP91 (+ B)	J – 11

VARIABLE RESISTOR	
RV501	G – 6
RV502	I – 8
RV601	A – 8

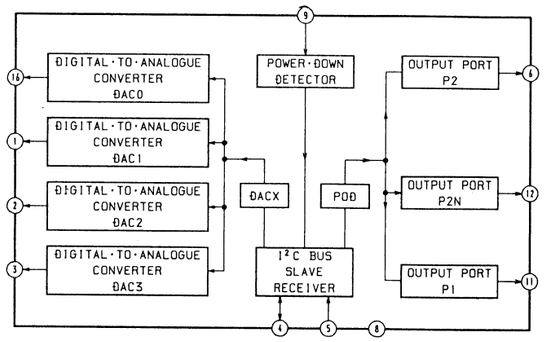


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

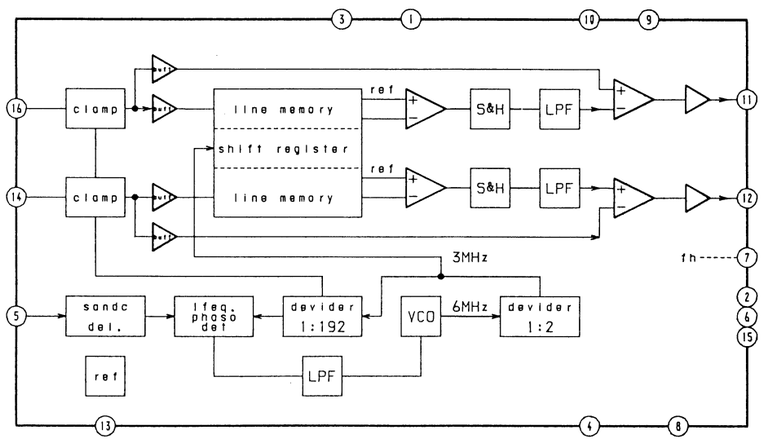
B1 Board IC301 TDA4580-V4



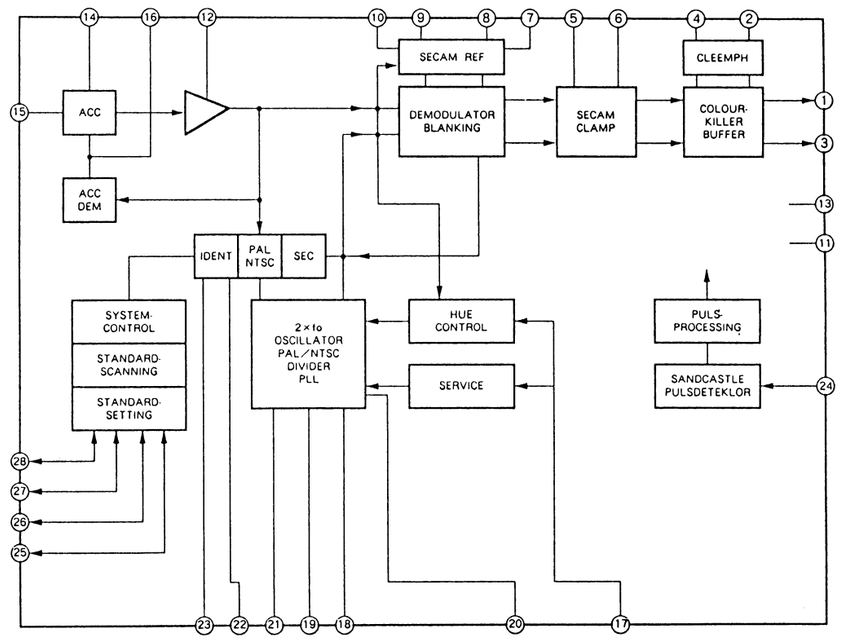
B1 Board IC302 TDA8442-N3



B BOARD IC303 TDA4660



B1 Board IC304 TDA4650WP



IC	
IC301	E – 6
IC302	D – 5
IC303	C – 6
IC304	C – 7
IC305	B – 6
IC306	E – 8
IC308	E – 7
IC310	A – 6
IC311	A – 5
IC312	A – 7
IC313	A – 6
IC315	A – 7

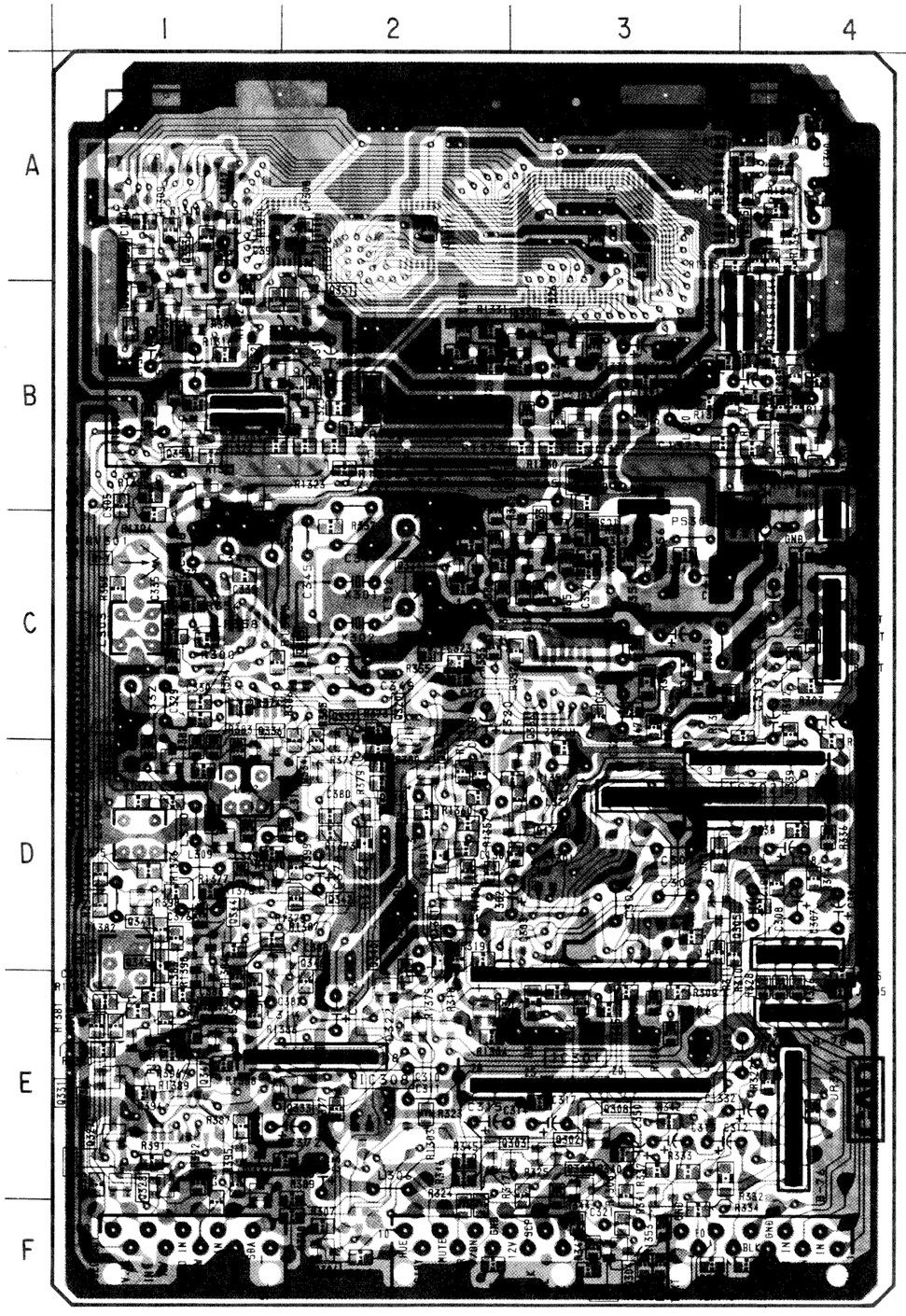
TRANSISTOR	
Q301	E – 3
Q302	E – 3
Q303	E – 3
Q304	F – 3
Q305	D – 4
Q306	F – 2
Q307	F – 3
Q308	E – 3
Q310	C – 1
Q311	C – 1
Q320	C – 2
Q321	B – 2
Q322	B – 3
Q323	C – 3
Q324	C – 2
Q327	E – 1
Q328	E – 1
Q329	E – 1
Q330	E – 1
Q331	E – 1
Q332	E – 1
Q333	E – 2
Q334	D – 2
Q335	D – 1
Q336	C – 1
Q337	C – 2
Q338	D – 1
Q339	D – 2
Q340	D – 2
Q341	D – 1
Q342	D – 2
Q343	E – 1
Q344	D – 1
Q345	D – 1
Q346	D – 2
Q347	E – 1
Q348	D – 2
Q350	B – 3
Q352	B – 1
Q353	A – 1
Q354	B – 1
Q355	B – 2
Q356	B – 1
Q357	B – 1

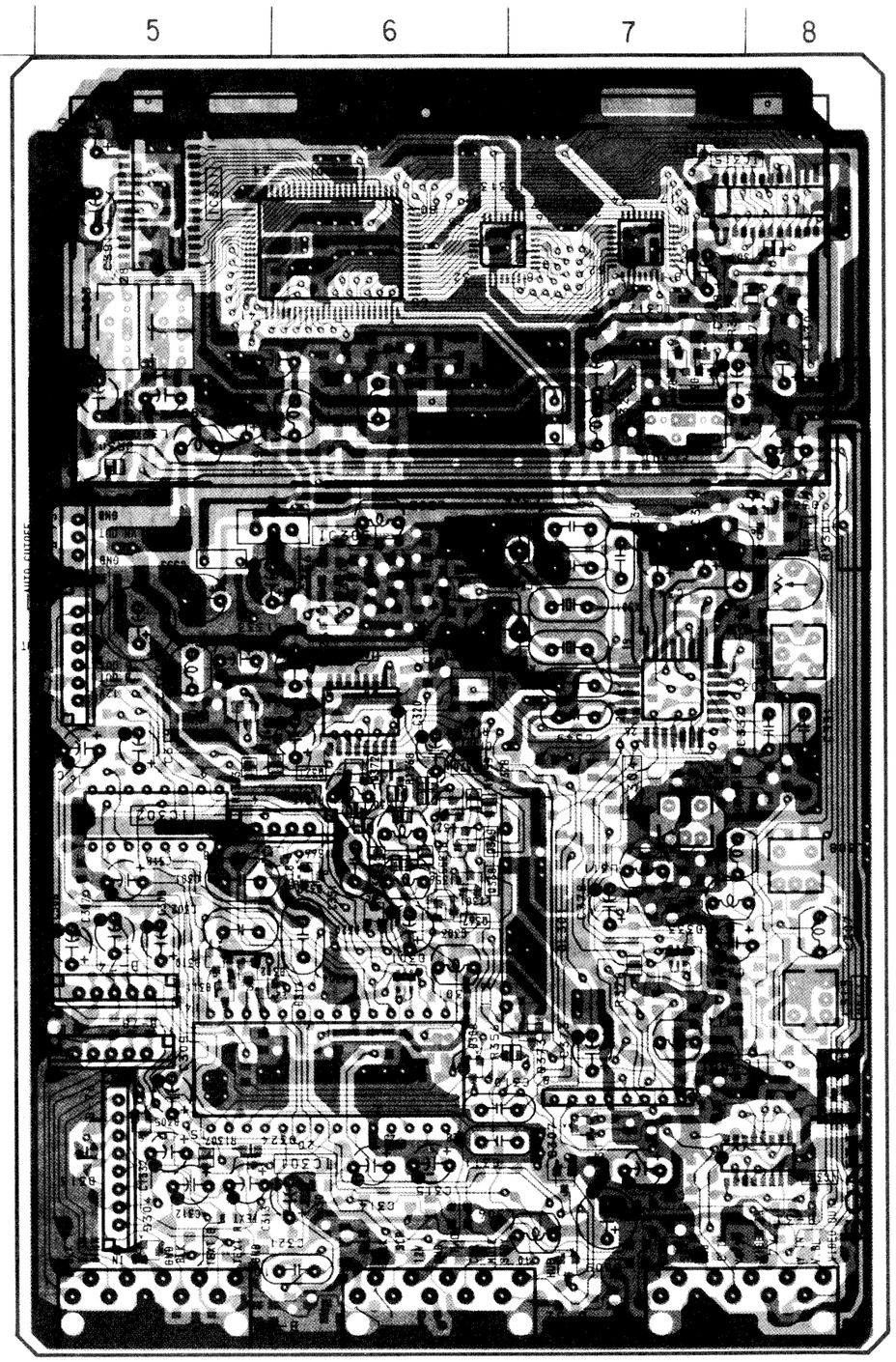
MC-Service

B1 VIDEO PROCESSOR, COLOR PROCESSOR
Y/C SW, D/A CONVERTER, MEMORY,
A/D CONVERTER

- : pattern from the side which enables seeing.
- : pattern of the rear side.

– B1 Board –





IC	
IC301	E – 6
IC302	D – 5
IC303	C – 6
IC304	C – 7
IC305	B – 6
IC306	E – 8
IC308	E – 7
IC310	A – 6
IC311	A – 5
IC312	A – 7
IC313	A – 6
IC315	A – 7

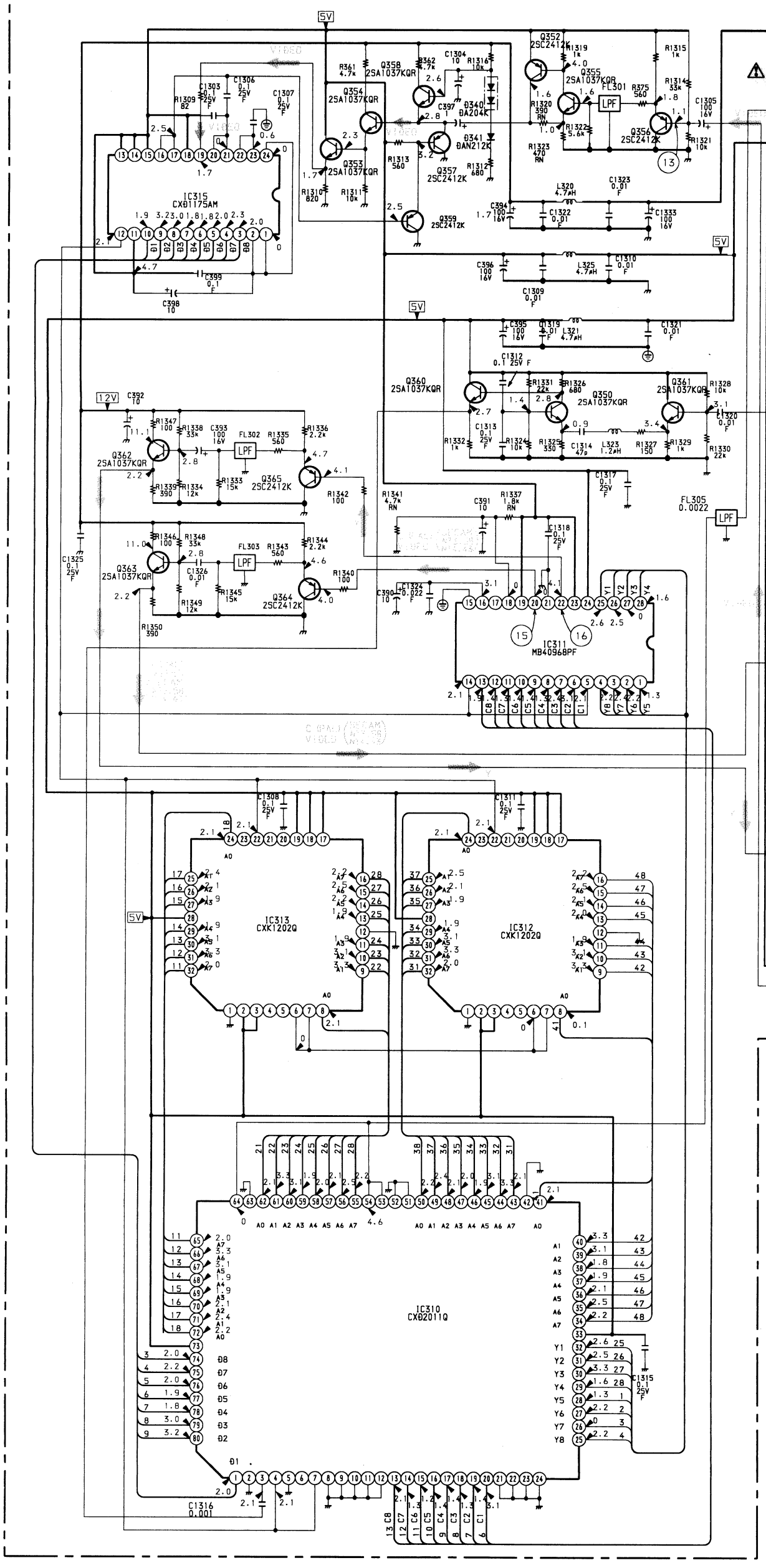
TRANSISTOR	
Q301	E – 3
Q302	E – 3
Q303	E – 3
Q304	F – 3
Q305	D – 4
Q306	F – 2
Q307	F – 3
Q308	E – 3
Q310	C – 1
Q311	C – 1
Q320	C – 2
Q321	B – 2
Q322	B – 3
Q323	C – 3
Q324	C – 2
Q327	E – 1
Q328	E – 1
Q329	E – 1
Q330	E – 1
Q331	E – 1
Q332	E – 1
Q333	E – 2
Q334	D – 2
Q335	D – 1
Q336	C – 1
Q337	C – 2
Q338	D – 1
Q339	D – 2
Q340	D – 2
Q341	D – 1
Q342	D – 2
Q343	E – 1
Q344	D – 1
Q345	D – 1
Q346	D – 2
Q347	E – 1
Q348	D – 2
Q350	B – 3
Q352	B – 1
Q353	A – 1
Q354	B – 1
Q355	B – 2
Q356	B – 1
Q357	B – 1
Q360	B – 3
Q361	B – 3
Q362	B – 4
Q363	B – 4
Q364	A – 4
Q365	A – 4
Q366	C – 3
Q367	D – 6
Q368	D – 6
Q369	D – 6
Q370	D – 6
Q371	D – 6
Q372	D – 6
Q373	E – 6
Q1301	D – 2
Q1302	D – 3
Q1303	E – 2

DIODE	
D301	D – 6
D304	E – 5
D305	E – 5
D307	E – 7
D308	E – 6
D309	F – 7
D310	D – 5
D311	D – 5
D312	D – 5
D314	D – 6
D318	D – 6
D319	D – 6
D320	D – 6
D321	C – 6
D322	E – 2
D330	C – 6
D331	E – 7
D333	D – 7
D336	B – 8
D340	B – 7
D341	B – 7

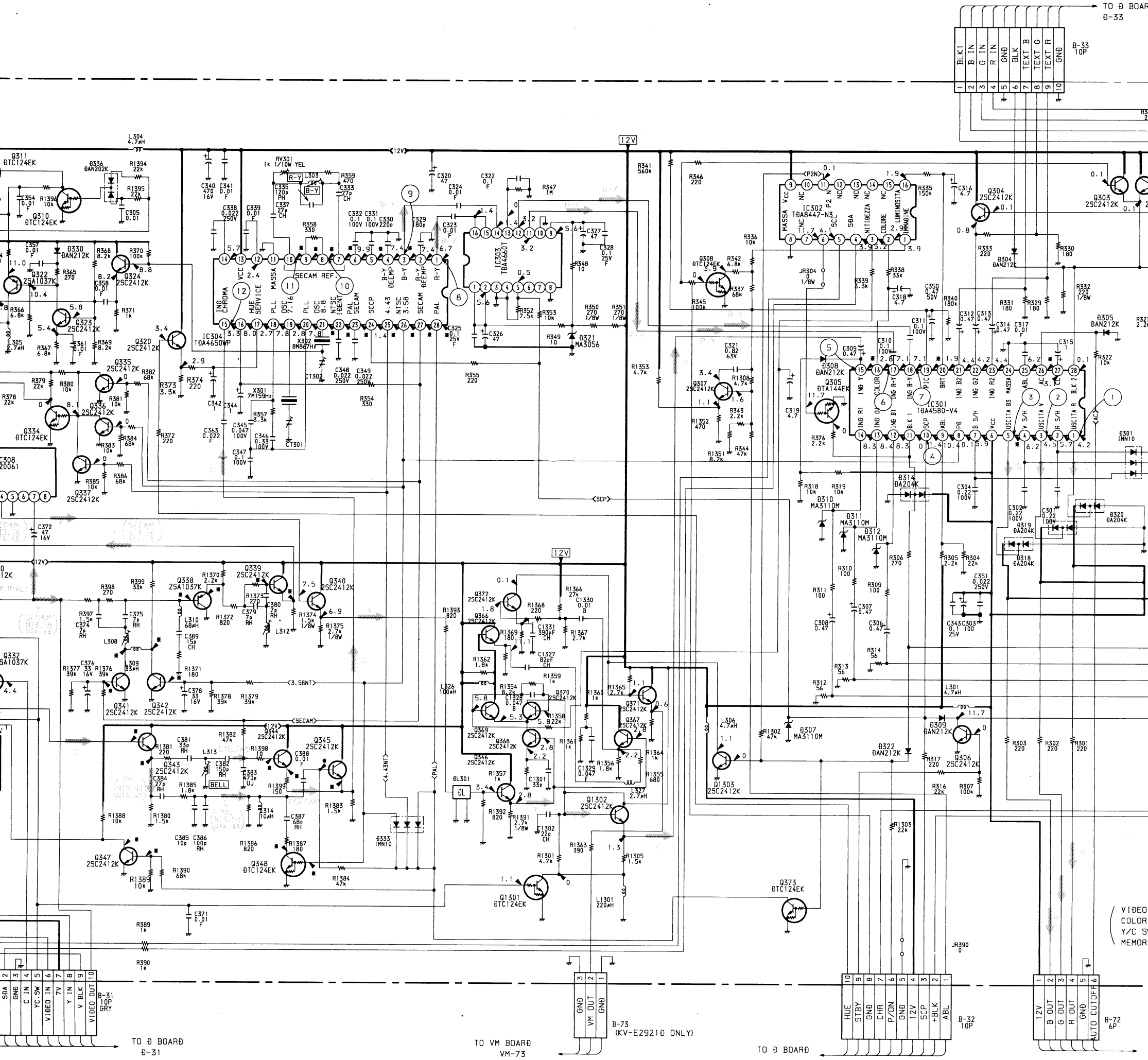
VARIABLE RESISTOR	
RV301	C – 8

TRMMER	
CT301	C – 6
CT302	C – 6

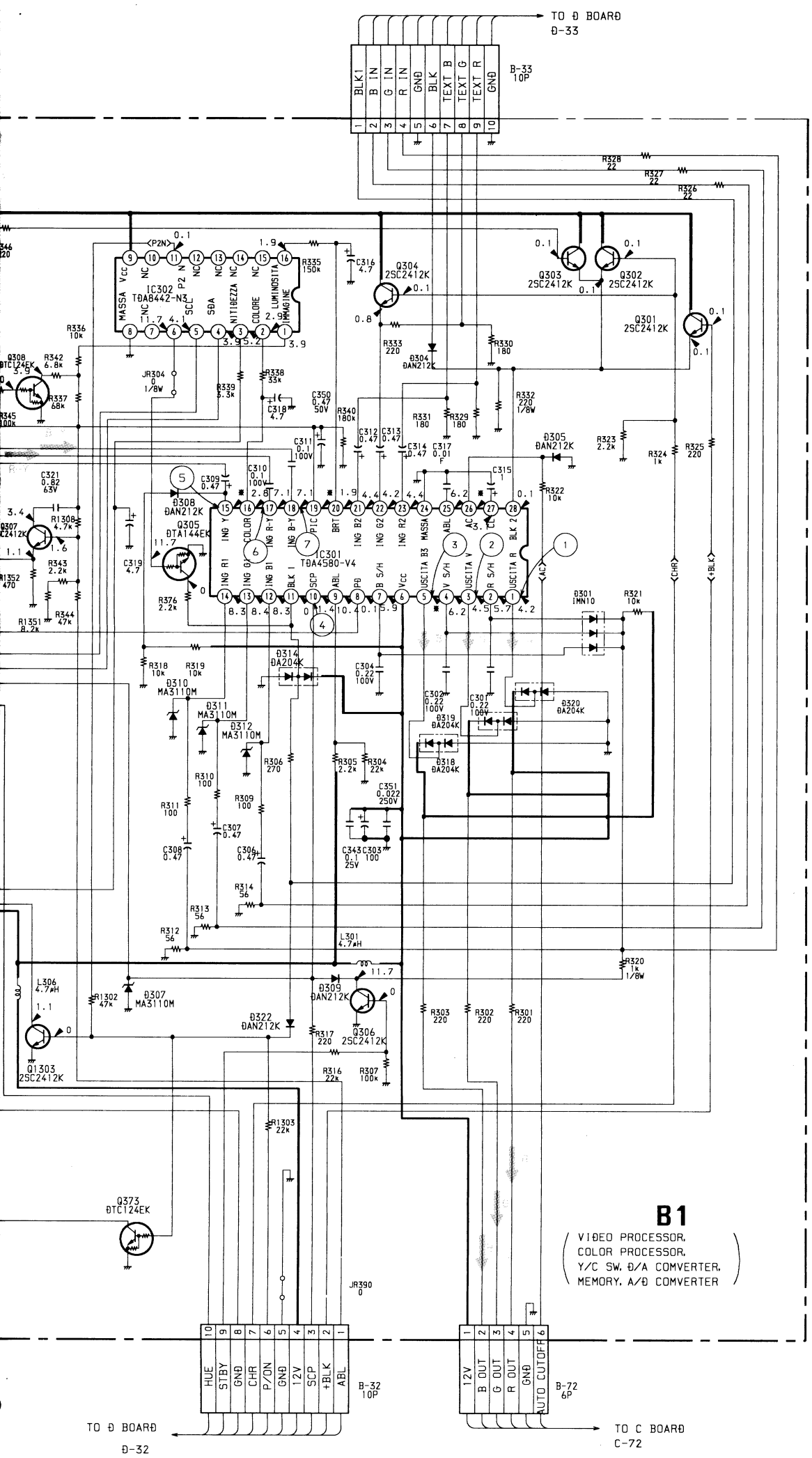
COIL	
L303	C – 8
L308	D – 8
L312	D – 7
L313	D – 8


IC315 CXD1175AM
IC313 CXK1202Q
IC312 CXK1202Q
IC310 CXD2011Q
IC311 MB40968PF
IC308 CX20061
IC306 HCF4052BM1
IC305 μPC24M05HF
IC304 TDA4650WP
FL301 LPF
FL302 LPF
FL303 LPF
FL305 0.0022 LPF
PS301 N10
5V
12V
7V
TO D BOARD
D-31
B-31 10P GRY
SCL
SDA
GND
C IN
YC. SW
VIDEO IN
7V
Y IN
V BLK
VIDEO OUT

MC-Service


TO Đ BOARD
Đ-33
B-33
10P
BLK I
B IN
G IN
R IN
GNĐ
BLK
TEXT B
TEXT G
TEXT R
GNĐ
12V
IC304 TĐA4650WP
IC303 TĐA4660T
IC302 TĐA8442-N3
IC301 TDA4580-V4
X301 7M159Hz
X302 8M867Hz
SECAM REF.
BELL
Đ321 MA3056
Đ301 IMN10
Đ333 IMN10
Đ305 ĐAN212K
Đ304 ĐAN212K
Đ308 ĐAN212K
Đ309 ĐAN212K
Đ322 ĐAN212K
Đ320 ĐA204K
Đ314 ĐA204K
Đ319 ĐA204K
Đ318 ĐA204K
Đ310 MA3110M
Đ311 MA3110M
Đ312 MA3110M
Đ307 MA3110M
Q1301 ĐTC124EK
Q1302 2SC2412K
Q1303 2SC2412K
Q301 2SA1037K
Q302 2SC2412K
Q303 2SC2412K
Q304 2SC2412K
Q305 ĐTA144EK
Q306 2SC2412K
Q307 2SC2412K
Q308 ĐTC124EK
Q310 ĐTC124EK
Q311 ĐTC124EK
Q320 2SC2412K
Q321 2SC2412K
Q322 2SA1037K
Q323 2SC2412K
Q324 2SC2412K
Q330 ĐAN212K
Q332 2SA1037K
Q333 2SC2412K
Q334 ĐTC124EK
Q335 2SC2412K
Q336 2SC2412K
Q337 2SC2412K
Q338 2SA1037K
Q339 2SC2412K
Q340 2SC2412K
Q341 2SC2412K
Q342 2SC2412K
Q343 2SC2412K
Q344 2SC2412K
Q345 2SC2412K
Q346 2SC2412K
Q347 2SC2412K
Q348 ĐTC124EK
Q366 2SC2412K
Q367 2SC2412K
Q368 2SC2412K
Q369 2SC2412K
Q370 2SC2412K
Q371 2SC2412K
Q372 2SC2412K
Q373 ĐTC124EK
L301 4.7µH
L303
L304 4.7µH
L306 4.7µH
L309 33µH
L310 68µH
L312
L313
L326 100µH
L327 2.7µH
L1301 220µH
ĐL301
ĐL
SCP
PAL
4.43NT
3.58NT
SECAM
VIĐEO
COLOR
Y/C S
MEMOR
B-31
10P
GRY
SDA
GNĐ
C IN
YC. SW
VIĐEO IN
7V
Y IN
V BLK
VIĐEO OUT
TO Đ BOARĐ
Đ-31
B-73
(KV-E2921Đ ONLY)
GNĐ
VM OUT
GNĐ
TO VM BOARĐ
VM-73
B-32
10P
HUE
STBY
GNĐ
CHR
P/ON
GNĐ
12V
SCP
+BLK
ABL
TO Đ BOARĐ
B-72
6P
12V
B OUT
G OUT
R OUT
GNĐ
AUTO CUTOFF
Đ-32

MC-Service



MC-Service

B1 Board

IC301	TĐA4580-V4	VIĐEO PROCESSOR
IC302	TĐA8442-N3	Đ/A CONVERTER
IC303	TĐA4660T	1H ĐELAY
IC304	TĐA4650WP	COLOR PROCESSOR
IC305	μPC24M05HF	REGULATOR
IC306	HCF4052BM1	Y/C SW
IC308	CX20061	Y INTERRURT
IC310	CXĐ2011Q	COMB CONTROL
IC311	MB40968PF	Đ/A CONVERTER
IC312	CXK1202Q	MEMORY
IC313	CXK1202Q	MEMORY
IC315	CXĐ1175AM	A/Đ CONVERTER
Q301	2SC2412K	CANAL +BLK
Q302	2SC2412K	ON SCREEN ĐISPL
Q303	2SC2412K	FAS PICTURE MUT
Q304	2SC2412K	ON SCREEN ĐISPL
Q305	ĐTA144EK	ANIT PRIORITY S
Q306	2SC2412K	STBY SW
Q307	2SC2412K	ABL
Q308	ĐTC124EK	MUTE
Q310	ĐTC124EK	SECAM SW
Q311	ĐTC124EK	SECAM SW
Q320	2SC2412K	HUE BUFFER
Q321	2SA1037K	CLK AMP3
Q322	2SA1037K	CLK AMP2
Q323	2SC2412K	CLK AMP1
Q324	2SC2412K	CLK BUFFER
Q327	2SA1037K	Y OUT
Q328	2SA1037K	VIĐEO IN
Q329	2SA1037K	Y IN
Q330	2SC2412K	VIĐEO BUFFER
Q331	2SA1037K	C OUT
Q332	2SA1037K	C IN
Q333	ĐTC124EK	Y/C SW
Q334	ĐTC124EK	Y SW
Q335	2SC2412K	SECAM SW
Q336	2SC2412K	NTSC (3.58) SW
Q337	2SC2412K	NTSC (4.43) SW
Q338	2SA1037K	Y BUFFER
Q339	2SC2412K	Y BUFFER
Q340	2SC2412K	Y BUFFER
Q341	2SC2412K	SECAM TRAP SW
Q342	2SC2412K	NTSC TRAP SW
Q343	2SC2412K	C OUT
Q344	2SC2412K	SECAM SW
Q345	2SC2412K	PAL/SECAM SW
Q346	2SC2412K	Y IN
Q347	2SC2412K	PAL SW
Q348	ĐTC124EK	NTSC (3.58) SW
Q350	2SA1037KQR	CLK AMP
Q352	2SC2412K	VIĐEO AMP
Q353	2SA1037KQR	BUFFER
Q354	2SA1037KQR	BUFFER
Q355	2SA1037KQR	VIĐEO AMP
Q356	2SC2412K	VIĐEO BUFFER
Q357	2SC2412K	CLAMP BIAS
Q358	2SA1037KQR	VIĐEO CLAMP
Q359	2SC2412K	CLAMP BIAS
Q360	2SA1037KQR	CLK BUFFER
Q361	2SA1037KQR	CLK AMP
Q362	2SA1037KQR	Y BUFFER
Q363	2SA1037KQR	C BUFFER
Q364	2SAII62	C BUFFER
Q365	2SAII62	Y BUFFER
Q366	2SC2412K	SHP BUFFER
Q367	2SC2412K	Y BUFFER
Q368	2SC2412K	SHP AMP
Q369	2SC2412K	SHP AMP
Q370	2SC2412K	SHP AMP
Q371	2SC2412K	VM BUFFER
Q372	2SC2412K	VM AMP
Q373	ĐTC124EK	SYSTEM SW
Q1301	ĐTC124EK	Y BUFFER
Q1302	2SC2412K	Y BUFFER
Q1303	2SC2412K	VM MUTE
Đ301	1MN10	ACO AT STBY
Đ304	ĐAN212K	PROTECT
Đ305	ĐAN212K	PROTECT
Đ307	MA3110M	PROTECT
Đ308	ĐAN212K	PROTECT
Đ309	ĐAN212K	PROTECT
Đ310	MA3110M	PROTECT
Đ311	MA3110M	PROTECT
Đ312	MA3110M	PROTECT
Đ314	ĐA204K	PROTECT
Đ318	ĐA204K	PROTECT
Đ319	ĐA204K	PROTECT
Đ320	ĐA204K	PROTECT
Đ321	MA3056	REG
Đ322	ĐAN212K	PROTECT
Đ330	ĐAN212K	BIAS
Đ331	ĐAP202K	Y/C SW
Đ333	1MN10	SYSTEM SW
Đ336	ĐAN202K	CORRECT SW
Đ340	ĐA204K	VIĐEO AMP
Đ341	ĐAN212K	VIĐEO AMP

As to the voltage volue shown by the mark ※ on the Schematic Diagram, see the another list.

B1 Board

IC·NO	PIN·NO	PAL	SECAM	NTSC 3.38	NTSC 4.43
IC301	5	5.1	4.8	4.8	4.8
	15	7.3	7.0	7.0	7.0
	19	3.1	3.4	3.8	3.4
	26	6.6	6.6	6.0	6.3
IC304	3	6.8	6.8	6.9	6.8
	5	9.9	10.1	9.9	9.9
	7	4.3	3.5	4.6	4.6
	8	3.4	3.0	3.4	3.4
	9	3.4	3.0	3.4	3.4
	10	4.3	3.4	4.6	4.6
	21	2.3	3.1	3.1	2.3
	22	5.6	5.6	5.6	7.4
	23	7.5	7.5	5.7	5.7
	25	0	1.4	5.9	5.9
	26	0	0	0	0
	27	0	5.9	0	0
	28	5.9	0	0	0

Q·NO		P
Q338	B	2
	E	3
Q339	B	3
	E	3
Q341	B	
	C	11
Q342	B	
	C	11
Q343	B	3
	E	2
Q344	B	
	E	4
Q345	B	4
	E	4
Q347	B	0
	C	0
Q348	B	0
	C	0

B1 Board

IC301	TDA4580-V4	VIDEO PROCESSOR
IC302	TDA8442-N3	D/A CONVERTER
IC303	TDA4660T	1H DELAY
IC304	TDA4650WP	COLOR PROCESSOR
IC305	μPC24M05HF	REGULATOR
IC306	HCF4052BM1	Y/C SW
IC308	CX20061	Y INTERRURT
IC310	CXD2011Q	COMB CONTROL
IC311	MB40968PF	D/A CONVERTER
IC312	CXK1202Q	MEMORY
IC313	CXK1202Q	MEMORY
IC315	CXD1175AM	A/D CONVERTER
Q301	2SC2412K	CANAL +BLK
Q302	2SC2412K	ON SCREEN DISPLAY SW
Q303	2SC2412K	FAS PICTURE MUTE SW
Q304	2SC2412K	ON SCREEN DISPLAY SW
Q305	DTA144EK	ANIT PRIORITY SCART
Q306	2SC2412K	STBY SW
Q307	2SC2412K	ABL
Q308	DTC124EK	MUTE
Q310	DTC124EK	SECAM SW
Q311	DTC124EK	SECAM SW
Q320	2SC2412K	HUE BUFFER
Q321	2SA1037K	CLK AMP3
Q322	2SA1037K	CLK AMP2
Q323	2SC2412K	CLK AMP1
Q324	2SC2412K	CLK BUFFER
Q327	2SA1037K	Y OUT
Q328	2SA1037K	VIDEO IN
Q329	2SA1037K	Y IN
Q330	2SC2412K	VIDEO BUFFER
Q331	2SA1037K	C OUT
Q332	2SA1037K	C IN
Q333	DTC124EK	Y/C SW
Q334	DTC124EK	Y SW
Q335	2SC2412K	SECAM SW
Q336	2SC2412K	NTSC (3.58) SW
Q337	2SC2412K	NTSC (4.43) SW
Q338	2SA1037K	Y BUFFER
Q339	2SC2412K	Y BUFFER
Q340	2SC2412K	Y BUFFER
Q341	2SC2412K	SECAM TRAP SW
Q342	2SC2412K	NTSC TRAP SW
Q343	2SC2412K	C OUT
Q344	2SC2412K	SECAM SW
Q345	2SC2412K	PAL/SECAM SW
Q346	2SC2412K	Y IN
Q347	2SC2412K	PAL SW
Q348	DTC124EK	NTSC (3.58) SW
Q350	2SA1037KQR	CLK AMP
Q352	2SC2412K	VIDEO AMP
Q353	2SA1037KQR	BUFFER
Q354	2SA1037KQR	BUFFER
Q355	2SA1037KQR	VIDEO AMP
Q356	2SC2412K	VIDEO BUFFER
Q357	2SC2412K	CLAMP BIAS
Q358	2SA1037KQR	VIDEO CLAMP
Q359	2SC2412K	CLAMP BIAS
Q360	2SA1037KQR	CLK BUFFER
Q361	2SA1037KQR	CLK AMP
Q362	2SA1037KQR	Y BUFFER
Q363	2SA1037KQR	C BUFFER
Q364	2SAII62	C BUFFER
Q365	2SAII62	Y BUFFER
Q366	2SC2412K	SHP BUFFER
Q367	2SC2412K	Y BUFFER
Q368	2SC2412K	SHP AMP
Q369	2SC2412K	SHP AMP
Q370	2SC2412K	SHP AMP
Q371	2SC2412K	VM BUFFER
Q372	2SC2412K	VM AMP
Q373	DTC124EK	SYSTEM SW
Q1301	DTC124EK	Y BUFFER
Q1302	2SC2412K	Y BUFFER
Q1303	2SC2412K	VM MUTE
D301	1MN10	ACO AT STBY
D304	DAN212K	PROTECT
D305	DAN212K	PROTECT
D307	MA3110M	PROTECT
D308	DAN212K	PROTECT
D309	DAN212K	PROTECT
D310	MA3110M	PROTECT
D311	MA3110M	PROTECT
D312	MA3110M	PROTECT
D314	DA204K	PROTECT
D318	DA204K	PROTECT
D319	DA204K	PROTECT
D320	DA204K	PROTECT
D321	MA3056	REG
D322	DAN212K	PROTECT
D330	DAN212K	BIAS
D331	DAP202K	Y/C SW
D333	1MN10	SYSTEM SW
D336	DAN202K	CORRECT SW
D340	DA204K	VIDEO AMP
D341	DAN212K	VIDEO AMP

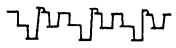
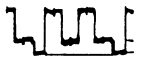
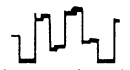
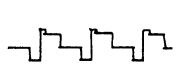
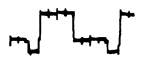
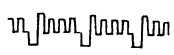
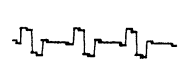
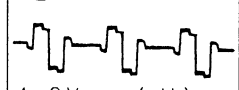
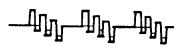
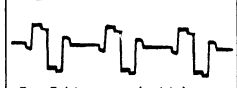
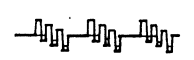
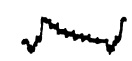
he voltage volue shown by the
on the Schematic Diagram, see
her list.

B1 Board

IC·NO	PIN·NO	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	⑤	5.1	4.8	4.8	4.8
	⑮	7.3	7.0	7.0	7.0
	⑲	3.1	3.4	3.8	3.4
	㉖	6.6	6.6	6.0	6.3
IC304	③	6.8	6.8	6.9	6.8
	⑤	9.9	10.1	9.9	9.9
	⑦	4.3	3.5	4.6	4.6
	⑧	3.4	3.0	3.4	3.4
	⑨	3.4	3.0	3.4	3.4
	⑩	4.3	3.4	4.6	4.6
	㉑	2.3	3.1	3.1	2.3
	㉒	5.6	5.6	5.6	7.4
	㉓	7.5	7.5	5.7	5.7
	㉕	0	1.4	5.9	5.9
	㉖	0	0	0	0
	㉗	0	5.9	0	0
	㉘	5.9	0	0	0

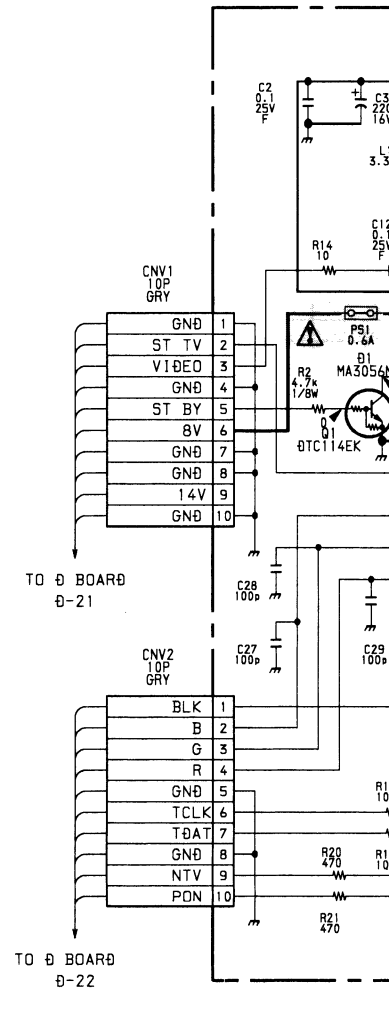
Q·NO		PAL	SECAM	NTSC 3.58	NTSC 4.43
Q338	B	2.6	3.9	3.9	3.9
	E	3.3	4.6	4.6	4.6
Q339	B	3.2	4.6	4.6	4.6
	E	3.6	3.9	3.9	3.9
Q341	B	0	0.6	0.4	0.1
	C	11.8	0	11.6	11.6
Q342	B	0	0	0.4	0
	C	11.7	0	11.7	11.7
Q343	B	3.2	5.3	5.3	5.3
	E	2.6	4.6	4.7	4.7
Q344	B	0	5.4	1.0	0.1
	E	4.0	4.8	1.5	4.5
Q345	B	4.6	0.1	1.9	5.0
	E	4.0	4.4	1.4	4.4
Q347	B	0.6	0	0	0
	C	0.1	11.9	11.9	11.9
Q348	B	0.1	0.1	1.0	0.1
	C	0.4	0.2	0.2	0.4

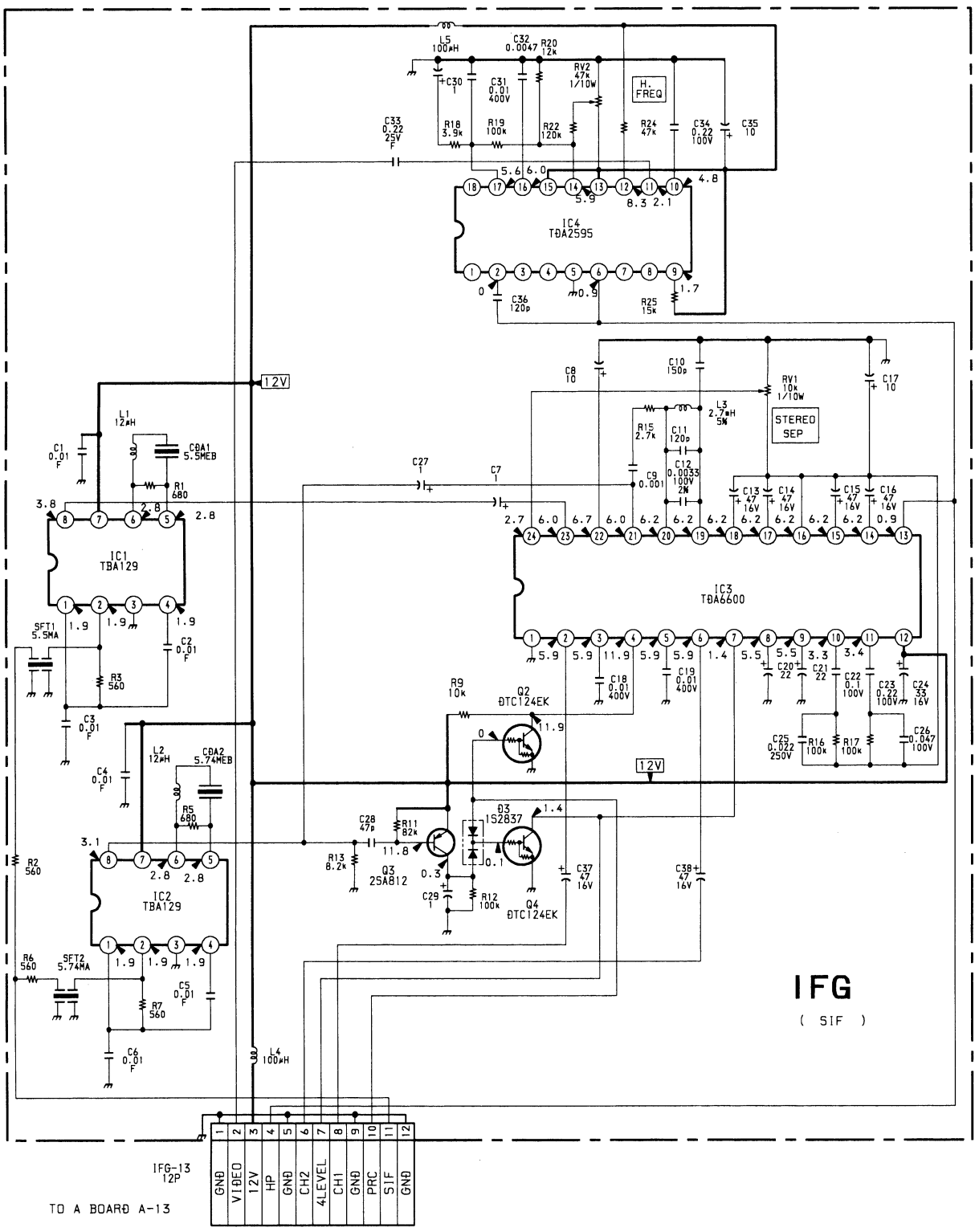
Waveforms B1 Board

① PAL  5.4Vp-p (H)	① SECAM  4.8Vp-p (H)	① NTSC3.58/ NTSC4.43  5.6Vp-p (H)
② PAL  5.4Vp-p (H)	② SECAM  4.8 Vp-p (H)	② NTSC3.58/ NTSC4.43 5.6Vp-p (H)
③ PAL  5.4Vp-p (H)	③ SECAM 5.0Vp-p (H)	③ NTSC3.58/ NTSC4.43 6.2Vp-p (H)
④ 10.5Vp-p (H)	⑤ PAL 0.4Vp-p (H)	⑤ SECAM 0.3Vp-p (H)
⑤ NTSC3.58/ NTSC4.43 0.6Vp-p (H)	⑥ PAL/SECAM  1.1Vp-p (H)	⑥ NTSC3.58/ NTSC4.43  1.2Vp-p (H)
⑦ PAL/SECAM  1.4Vp-p (H)	⑦ NTSC3.58/ NTSC4.43 1.4Vp-p (H)	⑧ PAL 0.6Vp-p (H)
⑧ SECAM 1.2Vp-p (H)	⑧ NTSC3.58/ NTSC4.43  0.8Vp-p (H)	⑨ PAL  0.7Vp-p (H)
⑨ SECAM 1.4Vp-p (H)	⑨ NTSC3.58/ NTSC4.43 0.85Vp-p (H)	⑩ SECAM 0.2Vp-p (H)
⑪ SECAM 1.2Vp-p (H)	⑫ PAL 0.16Vp-p (H)	⑫ SECAM 0.2Vp-p (H)
⑫ NTSC3.58/ NTSC4.43 0.3Vp-p (H)	⑬ PAL 1.0Vp-p (H)	⑬ SECAM 0.8Vp-p (H)
⑬ NTSC3.58 0.9Vp-p (H)	⑬ NTSC4.43 0.95Vp-p (H)	⑭ PAL  0.8Vp-p (H)
⑭ SECAM 0.7Vp-p (H)	⑭ NTSC3.58 0.6Vp-p (H)	⑭ NTSC4.43 0.8Vp-p (H)
⑮ PAL 0.7Vp-p (H)	⑮ SECAM 0.1Vp-p (H)	⑮ NTSC3.58 0.5Vp-p (H)
⑮ NTSC4.43 0.6Vp-p (H)	⑯ PAL/SECAM 0.9 Vp-p (H)	⑯ NTSC3.58 0.7Vp-p (H)
⑯ NTSC4.43 0.8Vp-p (H)	⑰ PAL 1.9Vp-p (H)	⑰ NTSC3.58 0.4Vp-p (H)
⑰ NTSC4.43 0.2Vp-p (H)	⑱ PAL 0.2Vp-p (H)	⑱ SECAM 0.8Vp-p (H)
⑲ PAL 0.6Vp-p (H)	⑲ SECAM 0.8Vp-p (H)	⑲ NTSC3.58/ NTSC4.43 0.9Vp-p (H)

V Board

IC1	SÐA20162-A002	MICRO-CONT
IC2	SAA5246E	IVT
IC3	FCB61C65-70P	STATIC-RAM
Q1	ÐTC114EK	STANÐ BY
Q2	2SÐ2096	5V REG
Q3	2SC2412K	SYNC BUFFER
Q4	2SC2412K	BLK OUT
Q5	MMST2907A	B OUT
Q6	MMST2907A	G OUT
Q7	MMST2907A	R OUT
Q8	2SC2412K	PON SW
Ð1	MA3056M	5V REG
Ð3	ÐAP202K	PROTEC
Ð4	ÐAN202K	PROTEC
Ð5	ÐAP202K	PROTEC
Ð6	ÐAN202K	PROTEC
Ð7	MA3036H	PROTEC
Ð9	MA3068M	PROTEC

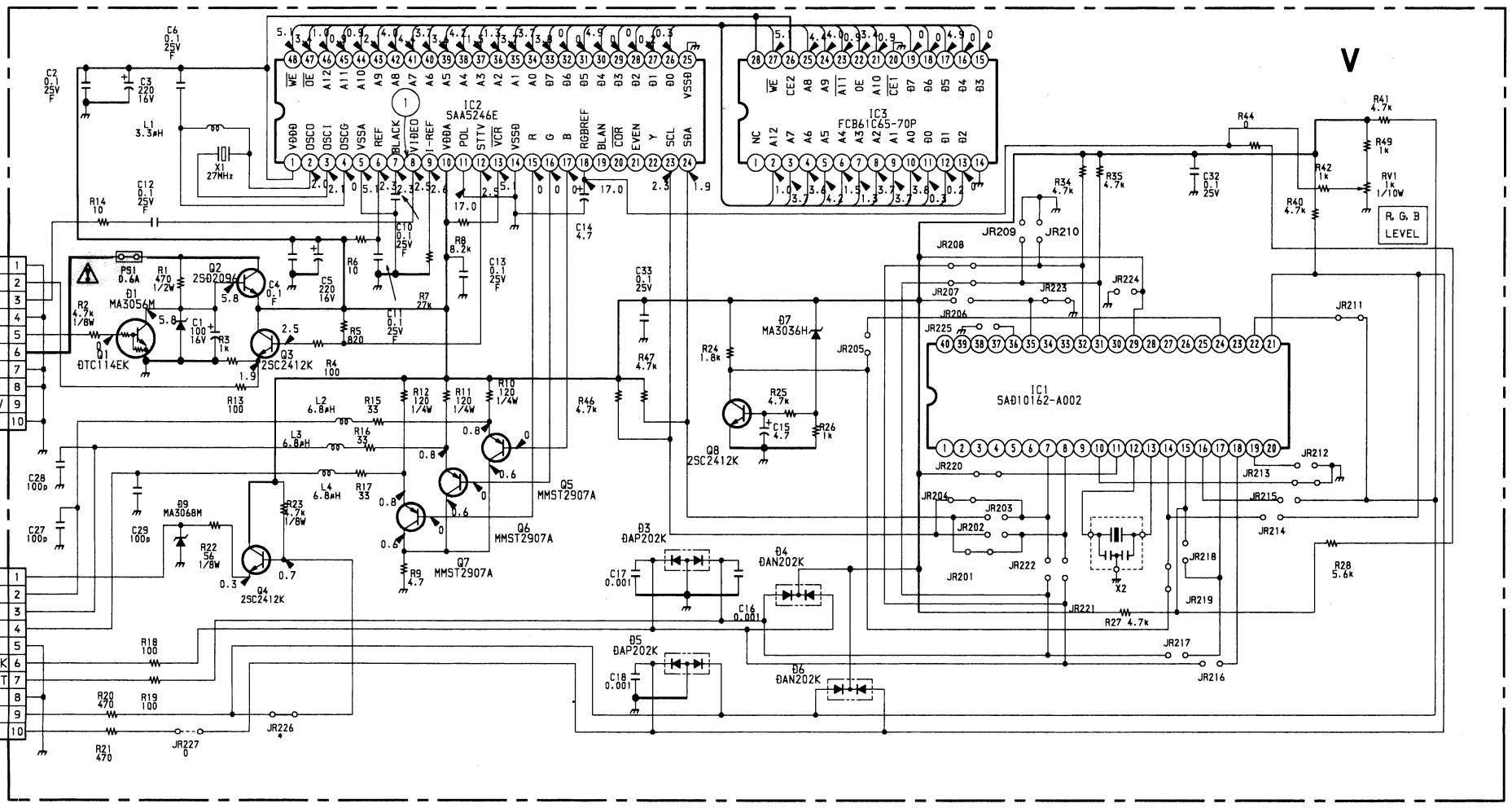




MC-Service

C Board

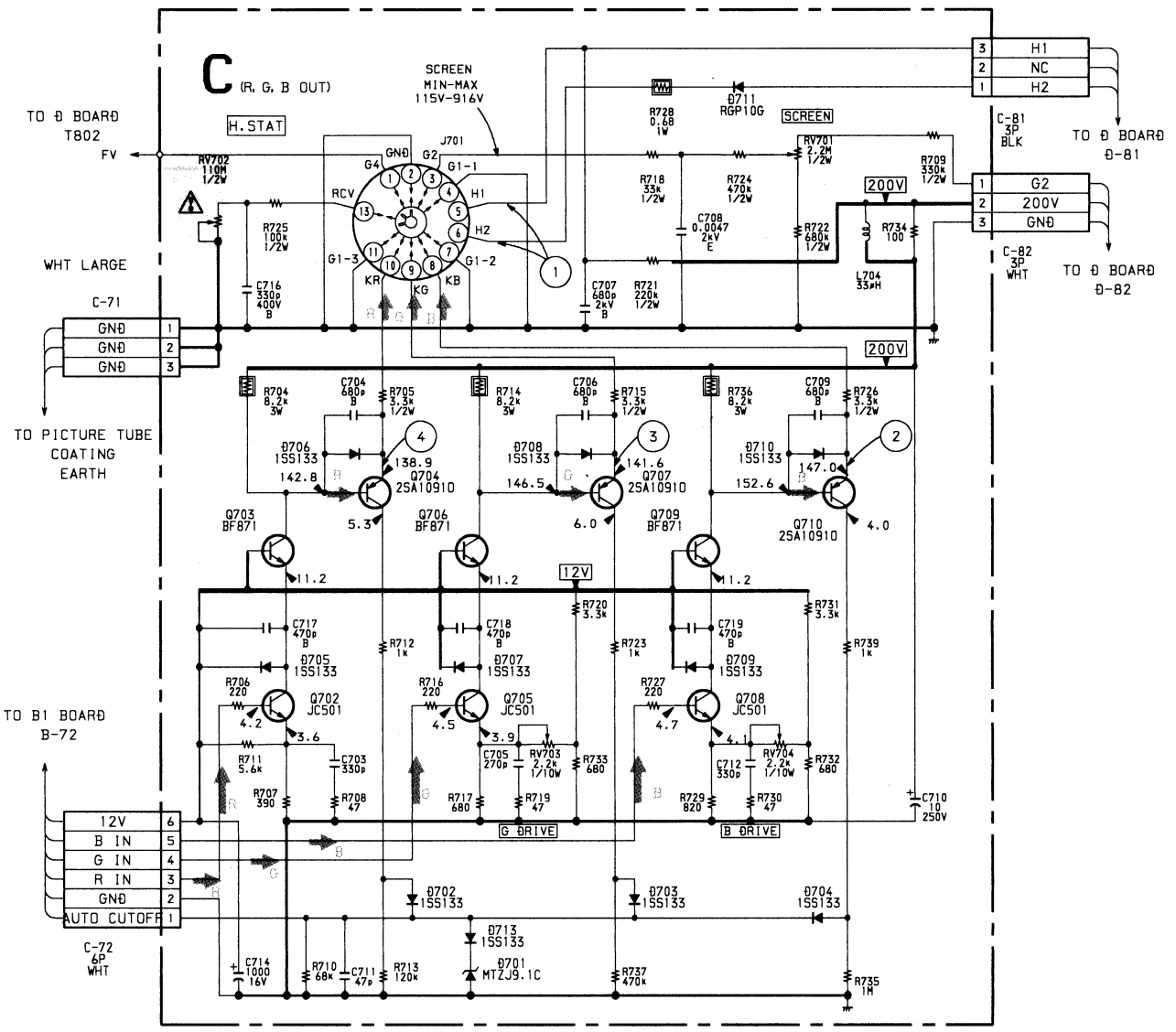
Q702	JC501	R ÐRIVE
Q703	ÐF871	R OUT
Q704	2SA10910	ACO MEASURING
Q705	JC501	G ÐRIVE
Q706	BF871	G OUT
Q707	2SA10910	ACO MEASURING
Q708	JC501	B ÐRIVE
Q709	BF871	B OUT
Q710	2SA10910	ACO MEASURING
Ð701	MTZJ9.1C	PROTECT
Ð702	1SS133	PROTECT
Ð703	1SS133	PROTECT
Ð704	1SS133	PROTECT
Ð705	1SS133	PROTECT
Ð706	1SS133	PROTECT
Ð707	1SS133	PROTECT
Ð708	1SS133	PROTECT
Ð709	1SS133	PROTECT
Ð710	1SS133	PROTECT
Ð711	RGP10G	HEATING VOLTAGE REC
Ð713	1SS133	PROTECT



Waveforms C Board

① 22 Vp-p (H)	② 90 Vp-p (H)	③ 100Vp-p (H)
④ 120Vp-p (H)		

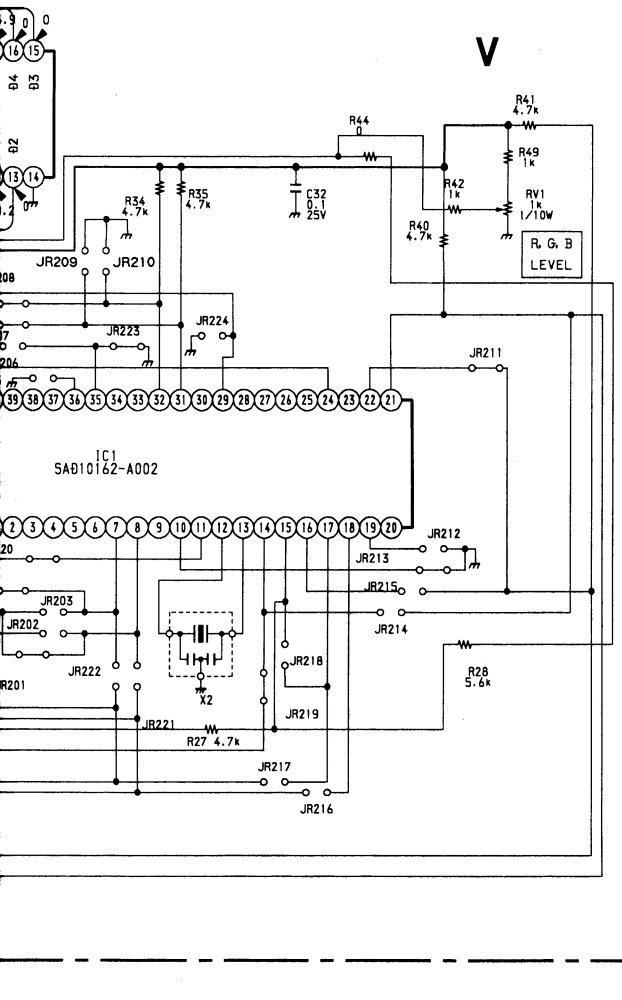
MC-Service



	R ÐRIVE
	R OUT
	ACO MEASURING
	G ÐRIVE
	G OUT
	ACO MEASURING
	B ÐRIVE
	B OUT
	ACO MEASURING
	PROTECT
	PROTECT
	PROTECT
	PROTECT
	PROTECT
	PROTECT
	PROTECT
	PROTECT
	PROTECT
	PROTECT
	HEATING VOLTAGE REC
	PROTECT

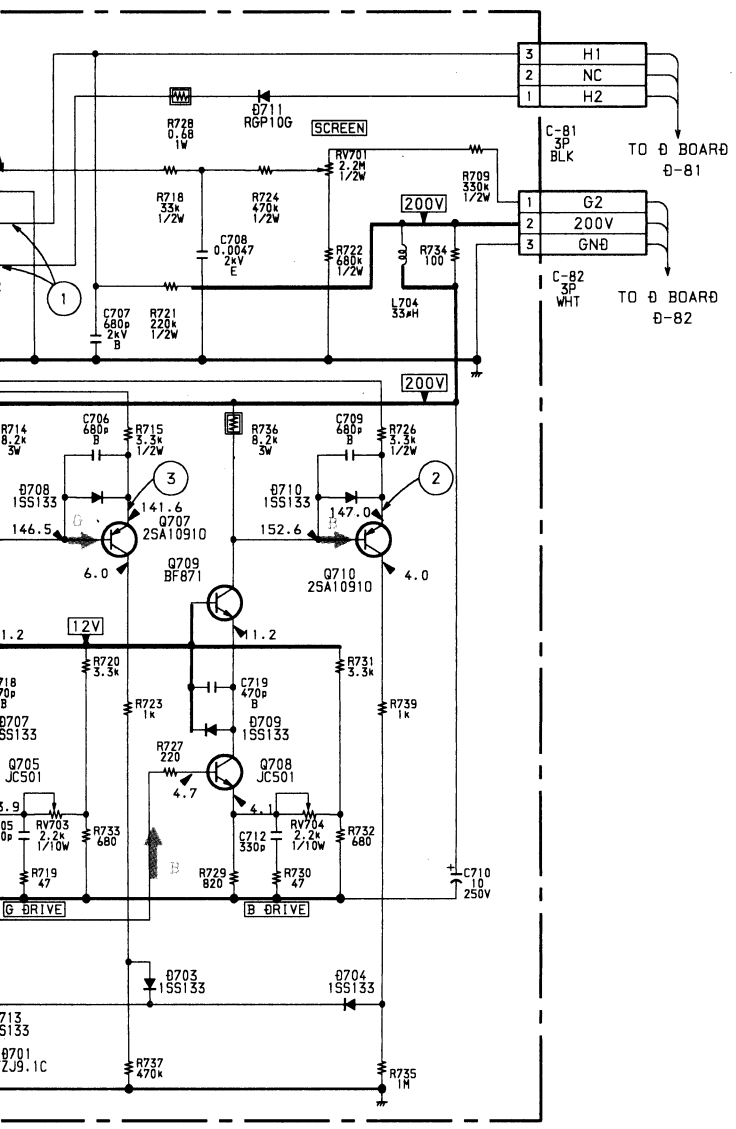
V [TELE TEXT] **C** [R·G·B OUT] **IFG** [SIF]

V

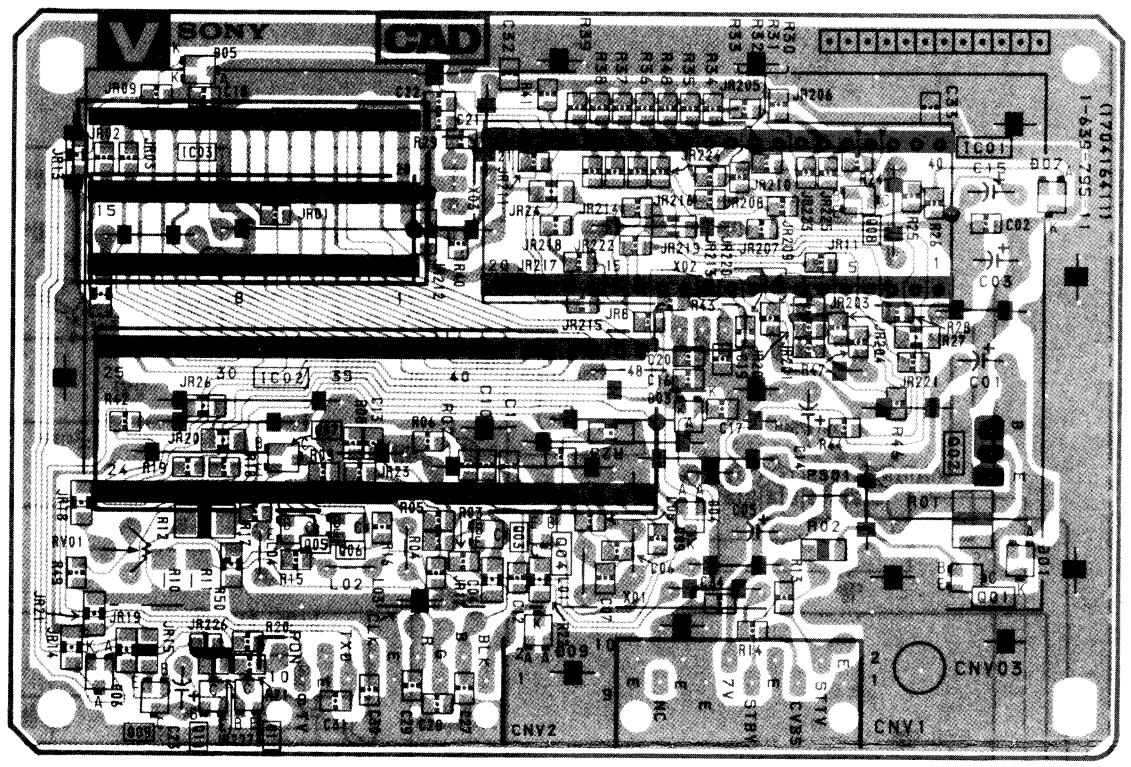


Waveforms C Board

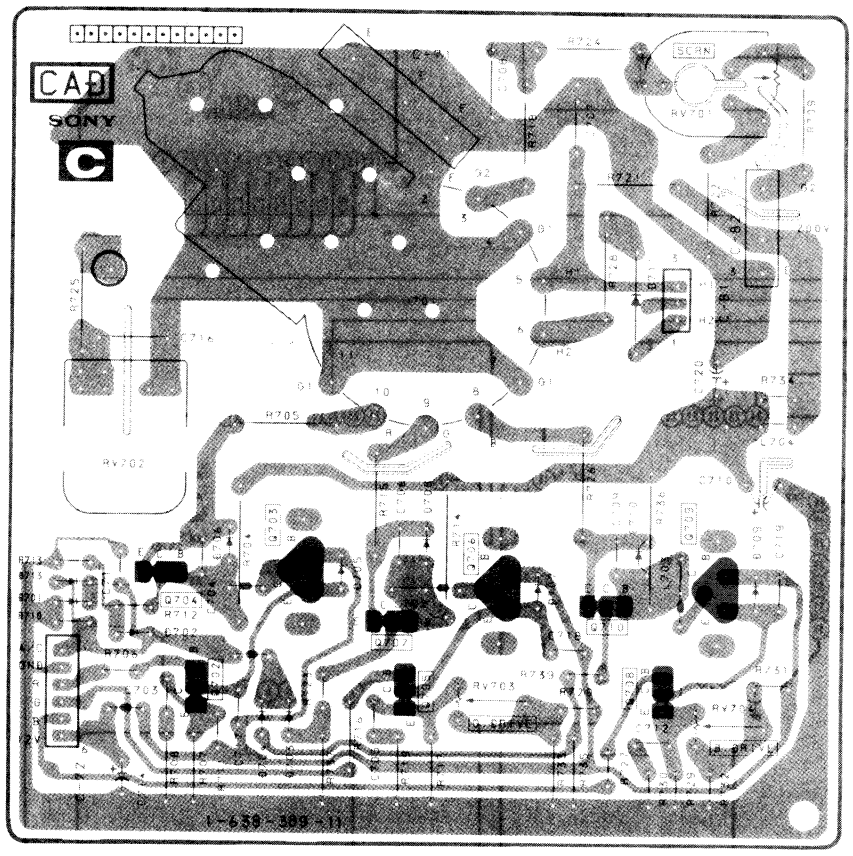
	②	③
Vp-p (H)	90 Vp-p (H)	100Vp-p (H)
Vp-p (H)		



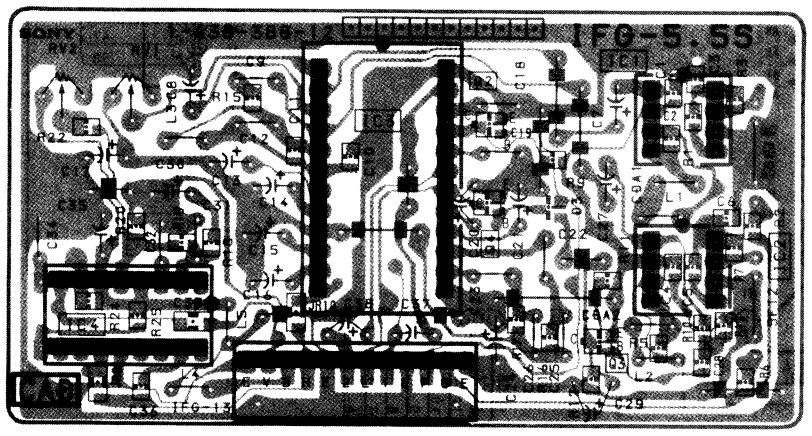
– V Board –



– C Board –

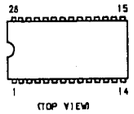


– IFG Board –

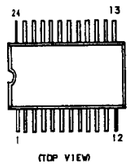


5-4. SEMICONDUCTORS

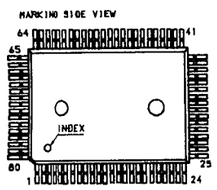
CXA1114P
FCB61C65-70P
SAA5246P/E
SDA20162-A002
TDA4580-V6
TDA6200
TEA2028B



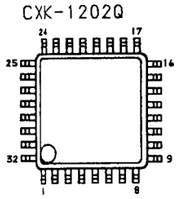
CXD1175AM



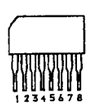
CXD2011Q



CXK-1202Q

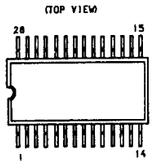


CX20061

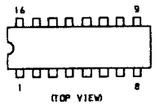


FCB61C65-70P
SDA20560-AE1C

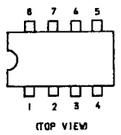
MB40968PF



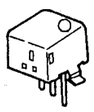
MC14053BCP
PCF8574
TC4051BPHB
TDA4660T
TDA8442-N3
TEA2260



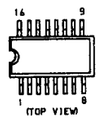
RC4558P
SDA2546
TBA129
TEA2014A
TEA2031A



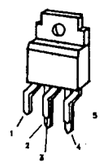
SBX1610-11



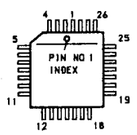
HCF4052BM



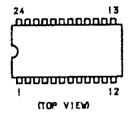
TDA2050



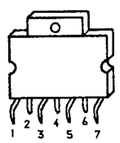
TDA4650WP



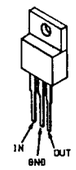
TDA6600-2



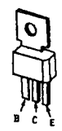
TDA8170



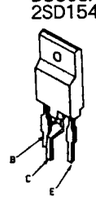
TEA7605
TYA7812CT
μPC24M05HF



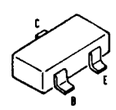
BF871



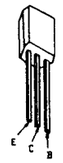
BU508AS1
BU508AS1H
2SD1548-LB



DTA144EK
DTC114EK
DTC124EK
2SA1162-G
2SB1295-UL6
2SC1623-L5L6



ĐTC144ES

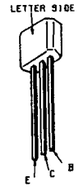


2SA1091-0
2SD789-34

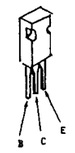
2SA1220A-P
2SC2688-LK
2SD789-34

2SB734-34
2SD774-34

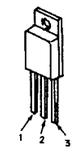
2SC2785-HFE



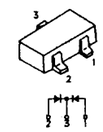
2SD2096-EF



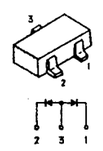
CTU-12S



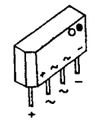
DAN202K
DAN212K
MA152WK



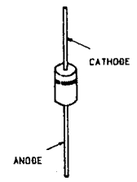
ĐAP202K



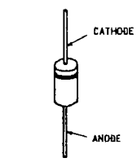
Đ4SB60L-F



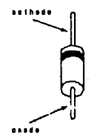
EGP20G
ERC06-15S
RU-3AM



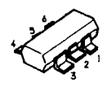
ERĐ28-08S
RGP02-17



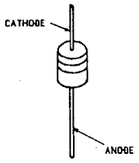
ERĐ29-08J



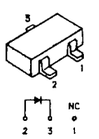
IMN10



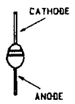
MTZJ-13B
MTZJ-15A
MTZJ-3.9B
MTZJ-33A
MTZJ-36D
MTZJ-6.2B
MTZN-10C
RD5.6ES-B2
RD6.8ES-B2
RD7.5ES-B2
RD9.1ES-B3
UZ4.7BSC
1SS119



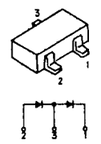
RĐ11M-B2
RĐ3.6M-B2
RĐ5.6M-B2
RĐ6.8M-B2



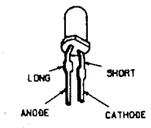
U05G



1SS226



LĐ-201VR



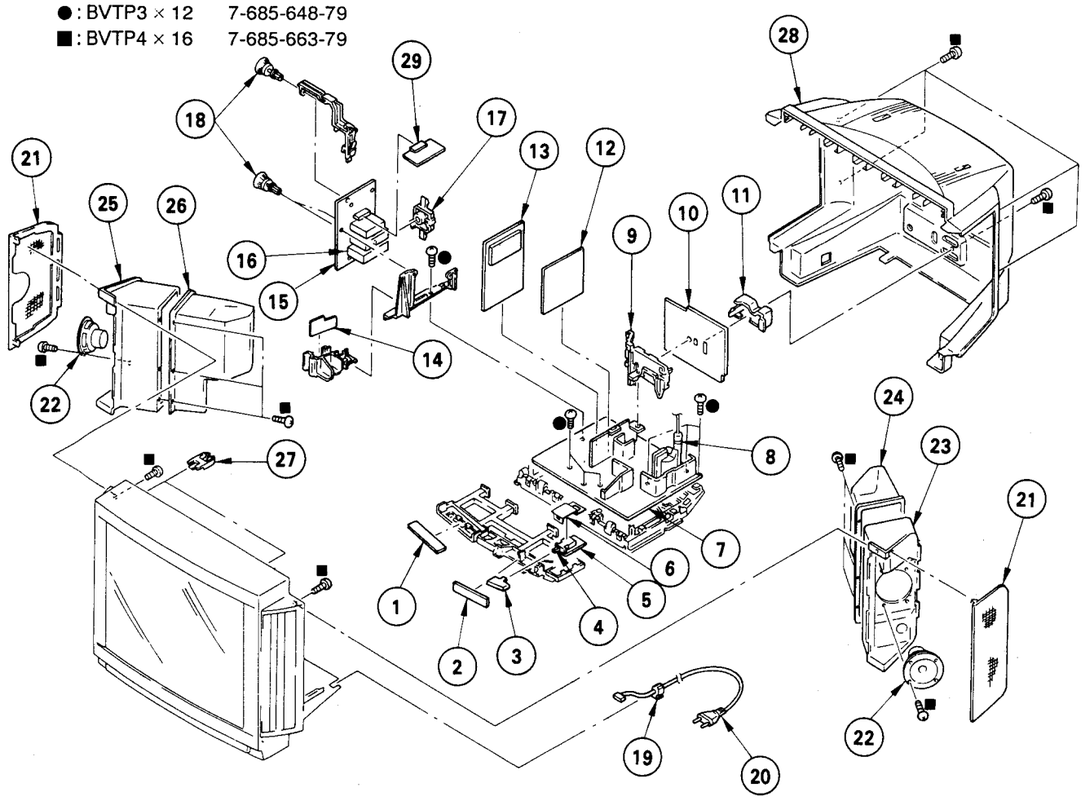
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CHASSIS

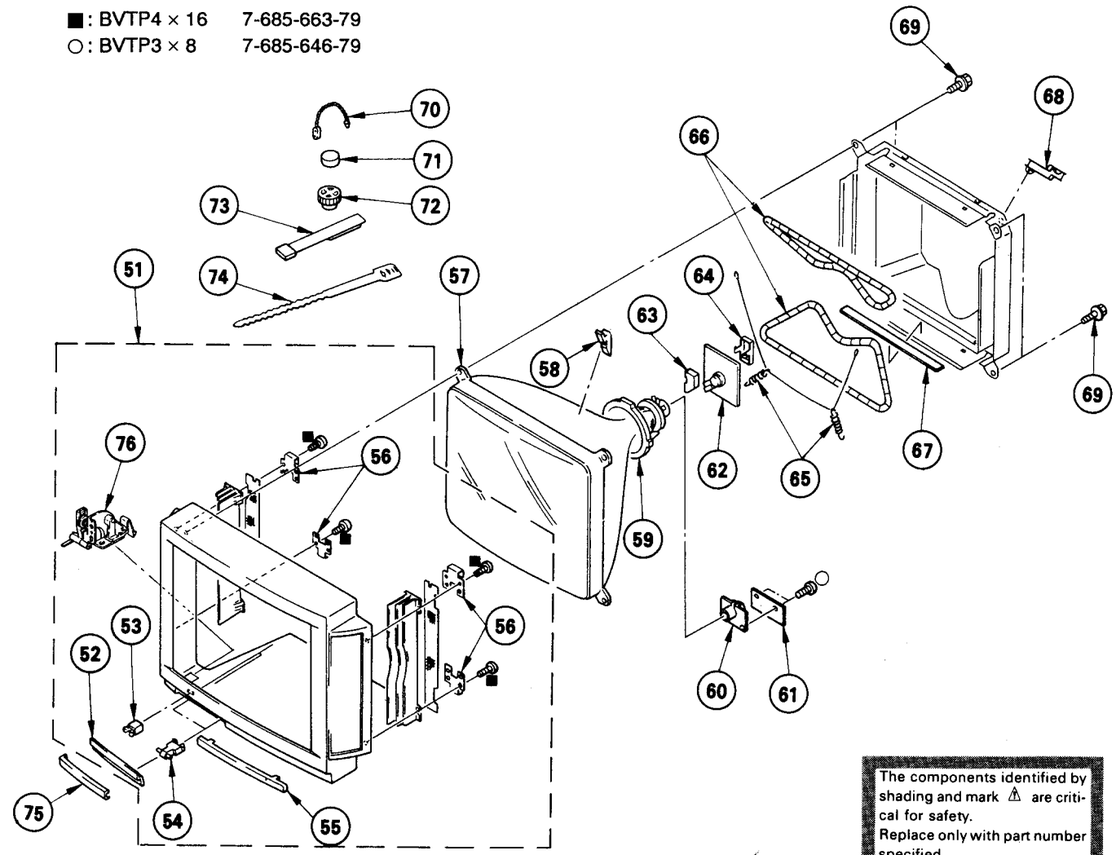
●: BVTP3 × 12 7-685-648-79
■: BVTP4 × 16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-638-391-11	H1 BOARD	
2	*1-638-392-11	H2 BOARD	
3	4-031-044-01	BUTTON, POWER	
4	⚠.1-571-433-12	SWITCH, PUSH (AC POWER)	
5	*1-638-390-11	F BOARD	
6	4-200-757-01	COVER, POWER SWITCH	
7	A-1642-032-A	D BOARD, COMPLETE	
8	⚠.1-439-416-51	TRANSFORMER ASSY, FLYBACK (UX-1650)	
9	*4-386-624-11	BRACKET, J	
10	A-1651-020-A	J1 BOARD, COMPLETE	
11	4-200-014-01	BRACKET, TERMINAL	
12	A-1645-013-A	V BOARD, COMPLETE	
13	A-1621-015-A	B1 BOARD, COMPLETE	
14	*1-638-393-11	J2 BOARD	
15	A-1632-022-A	A BOARD, COMPLETE	
16	⚠.1-465-301-11	TUNER, ET (UV-816(PLL))	
17	*4-386-617-01	HOLDER, TERMINAL	
18	4-386-618-01	RIVET, T TYPE	
19	⚠.4-389-201-02	HOLDER, AC CORD	
20	⚠.1-590-501-11	CORD, POWER(WITH NOISE FILTER)	
21	X-4029-440-1	GRILLE ASSY, SPEAKER	
22	1-544-475-11	SPEAKER	
23	*4-031-094-01	BOARD (RIGHT), BAFFLE	
24	*4-031-101-01	BOX (RIGHT), SPEAKER	
25	*4-031-095-01	BOARD (LEFT), BAFFLE	
26	*4-031-102-01	BOX (LEFT), SPEAKER	
27	4-382-745-01	HOLDER, RC	
28	4-032-133-01	COVER, REAR	
29	A-1654-004-A	IFG BOARD, COMPLETE	

6-2. PICTURE TUBE

■: BVTP4 × 16 7-685-663-79
○: BVTP3 × 8 7-685-646-79



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4029-713-1	CABINET ASSY (WITH BEZEL ASSY)	52-56, 76
52	4-032-134-01	DOOR	
53	4-392-036-01	CATCHER, PUSH	
54	3-703-035-11	SHAFT, LID	
55	4-032-203-01	ORNAMENT WINDOW	
56	4-031-088-01	BRACKET, SPEAKER	
57	⚠.8-733-823-05	PICTURE TUBE (A68JYK60X)	
58	3-704-495-01	SPACER, DY	
59	⚠.1-451-313-21	DEFLECTION YOKE (Y29FXA)	
60	⚠.1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)	
61	*1-634-193-11	VM BOARD	
62	*A-1638-013-A	C BOARD, COMPLETE	
63	*4-379-167-01	COVER (MAIN), CV	
64	*4-379-160-01	COVER (REAR LID), CV	
65	4-369-318-00	SPRING, TENSION	
66	⚠.1-426-398-11	COIL, DEMAGNETIZATION	
67	4-389-291-01	CUSHION	
68	*4-387-284-01	HOLDER, LEAD	
69	4-373-263-01	SCREW (M), PT	
70	4-308-870-00	CLIP, LEAD WIRE	
71	1-452-032-00	MAGNET, DISK; 10MM ϕ	
72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
73	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
74	3-701-007-00	BAND, BINDING	
75	4-032-135-01	ORNAMENT DOOR	
76	X-4029-878-1	DAMPER ASSY	

MC-Service

SECTION 7
ELECTRICAL PARTS LIST

B1

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION			REMARK
	A-1621-015-A	B1 BOARD, COMPLETE			
		**********			
		<CONNECTOR>			
B31	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B32	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B33	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B72	*1-568-881-51	PIN, CONNECTOR 6P			
B73	*1-568-878-51	PIN, CONNECTOR 3P			
		<CAPACITOR>			
C301	1-137-031-11	FILM	0.22MF	10%	100V
C302	1-137-031-11	FILM	0.22MF	10%	100V
C303	1-124-122-11	ELECT	100MF	20%	50V
C304	1-137-031-11	FILM	0.22MF	10%	100V
C305	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C306	1-124-902-00	ELECT	0.47MF	20%	50V
C307	1-124-902-00	ELECT	0.47MF	20%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V
C309	1-124-902-00	ELECT	0.47MF	20%	50V
C310	1-137-098-11	FILM	0.1MF	10%	100V
C311	1-137-098-11	FILM	0.1MF	10%	100V
C312	1-124-902-00	ELECT	0.47MF	20%	50V
C313	1-124-902-00	ELECT	0.47MF	20%	50V
C314	1-124-902-00	ELECT	0.47MF	20%	50V
C315	1-124-903-11	ELECT	1MF	20%	50V
C316	1-124-927-11	ELECT	4.7MF	20%	50V
C317	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C318	1-124-927-11	ELECT	4.7MF	20%	50V
C319	1-124-927-11	ELECT	4.7MF	20%	50V
C320	1-124-910-11	ELECT	47MF	20%	50V
C321	1-137-027-11	FILM	0.82MF	10%	63V
C322	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C323	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C324	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C325	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C326	1-124-910-11	ELECT	47MF	20%	50V
C327	1-124-910-11	ELECT	47MF	20%	50V
C328	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C329	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C330	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C331	1-137-098-11	FILM	0.1MF	10%	100V
C332	1-137-098-11	FILM	0.1MF	10%	100V
C333	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C335	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C337	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C338	1-137-102-11	FILM	0.022MF	10%	250V
C339	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C340	1-126-103-11	ELECT	470MF	20%	16V
C341	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C342	1-124-903-11	ELECT	1MF	20%	50V
C343	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C344	1-124-903-11	ELECT	1MF	20%	50V
C345	1-137-094-11	FILM	0.047MF	10%	100V
C346	1-137-033-11	FILM	0.33MF	10%	100V
C347	1-137-098-11	FILM	0.1MF	10%	100V
C348	1-137-102-11	FILM	0.022MF	10%	250V
C349	1-137-102-11	FILM	0.022MF	10%	250V
C350	1-124-902-00	ELECT	0.47MF	20%	50V
C351	1-137-102-11	FILM	0.022MF	10%	250V
C352	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C353	1-126-101-11	ELECT	100MF	20%	16V
C354	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C356	1-126-101-11	ELECT	100MF	20%	16V
C357	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C358	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C360	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C361	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C363	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C371	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C372	1-124-477-11	ELECT	47MF	20%	16V
C373	1-124-477-11	ELECT	47MF	20%	16V
C374	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C375	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C376	1-124-034-51	ELECT	33MF	20%	16V
C377	1-124-119-00	ELECT	330MF	20%	16V
C378	1-124-034-51	ELECT	33MF	20%	16V
C379	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C380	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C381	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C382	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C383	1-163-197-00	CERAMIC CHIP	470PF	5%	50V
C384	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C385	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C386	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C387	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C388	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C389	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C390	1-124-907-11	ELECT	10MF	20%	50V
C391	1-124-907-11	ELECT	10MF	20%	50V
C392	1-124-907-11	ELECT	10MF	20%	50V
C393	1-126-101-11	ELECT	100MF	20%	16V
C394	1-126-101-11	ELECT	100MF	20%	16V
C395	1-126-101-11	ELECT	100MF	20%	16V
C396	1-126-101-11	ELECT	100MF	20%	16V
C397	1-137-028-11	FILM	1MF	10%	63V
C398	1-124-907-11	ELECT	10MF	20%	50V
C399	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1301	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C1302	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1303	1-163-038-00	CERAMIC CHIP	0.1MF		25V

B1

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1304	1-124-907-11	ELECT	10MF	20%	50V
C1305	1-126-101-11	ELECT	100MF	20%	16V
C1306	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1307	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1308	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1309	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1310	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1311	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1312	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1313	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1314	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C1315	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1316	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1317	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1318	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1319	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1320	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1321	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1322	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1323	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1324	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C1325	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C1326	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C1327	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C1328	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1329	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C1330	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1331	1-164-187-11	CERAMIC CHIP	390PF	2%	50V
C1333	1-126-101-11	ELECT	100MF	20%	16V

<TRIMMER>

CT301	1-141-418-11	CAP, ADJ
CT302	1-141-418-11	CAP, ADJ

<DIODE>

D301	8-719-951-22	DIODE IMN10
D304	8-719-989-26	DIODE DAN212K
D305	8-719-989-26	DIODE DAN212K
D307	8-719-106-62	DIODE RD11M-B2
D308	8-719-989-26	DIODE DAN212K
D309	8-719-989-26	DIODE DAN212K
D310	8-719-106-62	DIODE RD11M-B2
D311	8-719-106-62	DIODE RD11M-B2
D312	8-719-106-62	DIODE RD11M-B2
D314	8-719-800-76	DIODE 1SS226
D318	8-719-800-76	DIODE 1SS226
D319	8-719-800-76	DIODE 1SS226
D320	8-719-800-76	DIODE 1SS226
D321	8-719-105-91	DIODE RD5.6M-B2
D322	8-719-400-18	DIODE MA152WK
D330	8-719-989-26	DIODE DAN212K
D331	8-719-914-44	DIODE DAP202K
D333	8-719-951-22	DIODE IMN10
D336	8-719-400-18	DIODE MA152WK
D340	8-719-800-76	DIODE 1SS226
D341	8-719-989-26	DIODE DAN212K

<DELAY LINE>

DL301	1-415-613-11	DELAY LINE, Y

REF.NO.	PART NO.	DESCRIPTION	REMARK

<FILTER>

FL301	1-236-620-11	FILTER, LOW PASS
FL302	1-236-620-11	FILTER, LOW PASS
FL303	1-236-620-11	FILTER, LOW PASS
FL305	1-236-164-11	ENCAPSULATED COMPONENT

<IC>

IC301	8-759-517-43	IC TDA4580/V7
IC302	8-759-980-60	IC TDA8442N3
IC303	8-759-510-48	IC TDA4660T
IC304	8-759-510-47	IC TDA4650WP
IC305	8-759-144-84	IC UPC24M05HF
IC306	8-759-510-50	IC HCF4052BM
IC308	8-752-006-12	IC CX20061
IC310	8-752-337-07	IC CXD2011Q
IC311	8-759-996-49	IC MB40968PF
IC312	8-752-338-45	IC CXK1202Q
IC313	8-752-338-45	IC CXK1202Q
IC315	8-752-334-55	IC CXD1175AM

<COIL>

L301	1-408-405-00	INDUCTOR	4.7UH
L303	1-404-554-11	COIL	
L304	1-408-405-00	INDUCTOR	4.7UH
L305	1-408-402-00	INDUCTOR	2.7UH
L306	1-408-405-00	INDUCTOR	4.7UH
L308	1-404-495-00	COIL	
L309	1-408-415-00	INDUCTOR	33UH
L310	1-408-419-00	INDUCTOR	68UH
L312	1-404-495-00	COIL	
L313	1-404-554-11	COIL	
L314	1-408-409-00	INDUCTOR	10UH
L320	1-408-405-00	INDUCTOR	4.7UH
L321	1-408-405-00	INDUCTOR	4.7UH
L323	1-408-398-00	INDUCTOR	1.2UH
L325	1-408-405-00	INDUCTOR	4.7UH
L326	1-408-421-00	INDUCTOR	100UH
L327	1-408-402-00	INDUCTOR	2.7UH
L1301	1-408-425-00	INDUCTOR	220UH

<IC LINK>

PS301⚠	1-532-605-91	LINK, IC (ICP-N10) 0.4A

<TRANSISTOR>

Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q305	8-729-901-06	TRANSISTOR DTA144EK
Q306	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q307	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q308	8-729-901-00	TRANSISTOR DTC124EK
Q310	8-729-901-00	TRANSISTOR DTC124EK
Q311	8-729-901-00	TRANSISTOR DTC124EK
Q320	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q321	8-729-216-22	TRANSISTOR 2SA1162-G
Q322	8-729-216-22	TRANSISTOR 2SA1162-G
Q323	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q324	8-729-120-28	TRANSISTOR 2SC1623-L5L6

B1

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q327	8-729-216-22	TRANSISTOR 2SA1162-G	
Q328	8-729-216-22	TRANSISTOR 2SA1162-G	
Q329	8-729-216-22	TRANSISTOR 2SA1162-G	
Q330	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q331	8-729-216-22	TRANSISTOR 2SA1162-G	
Q332	8-729-216-22	TRANSISTOR 2SA1162-G	
Q333	8-729-901-00	TRANSISTOR DTC124EK	
Q334	8-729-901-00	TRANSISTOR DTC124EK	
Q335	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q336	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q337	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q338	8-729-216-22	TRANSISTOR 2SA1162-G	
Q339	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q340	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q341	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q342	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q343	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q344	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q345	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q346	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q347	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q348	8-729-901-00	TRANSISTOR DTC124EK	
Q350	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q352	8-729-216-22	TRANSISTOR 2SA1162-G	
Q353	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q354	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q355	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q356	8-729-216-22	TRANSISTOR 2SA1162-G	
Q357	8-729-216-22	TRANSISTOR 2SA1162-G	
Q358	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q359	8-729-216-22	TRANSISTOR 2SA1162-G	
Q360	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q361	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q362	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q363	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q364	8-729-216-22	TRANSISTOR 2SA1162-G	
Q365	8-729-216-22	TRANSISTOR 2SA1162-G	
Q366	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q367	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q368	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q369	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q370	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q371	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q372	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q373	8-729-901-00	TRANSISTOR DTC124EK	
Q1301	8-729-901-00	TRANSISTOR DTC124EK	
Q1302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1303	8-729-901-00	TRANSISTOR DTC124EK	

<RESISTOR>

JR302	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR304	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR305	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR391	1-216-295-00	METAL GLAZE	0	5%	1/10W
R301	1-216-033-00	METAL GLAZE	220	5%	1/10W
R302	1-216-033-00	METAL GLAZE	220	5%	1/10W
R303	1-216-033-00	METAL GLAZE	220	5%	1/10W
R304	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R306	1-216-035-00	METAL GLAZE	270	5%	1/10W
R307	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W
R310	1-216-025-00	METAL GLAZE	100	5%	1/10W
R311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R312	1-216-019-00	METAL GLAZE	56	5%	1/10W
R313	1-216-019-00	METAL GLAZE	56	5%	1/10W
R314	1-216-019-00	METAL GLAZE	56	5%	1/10W
R316	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R317	1-216-033-00	METAL GLAZE	220	5%	1/10W
R318	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R319	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R320	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R321	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R322	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R323	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R324	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R325	1-216-033-00	METAL GLAZE	220	5%	1/10W
R326	1-216-009-00	METAL GLAZE	22	5%	1/10W
R327	1-216-009-00	METAL GLAZE	22	5%	1/10W
R328	1-216-009-00	METAL GLAZE	22	5%	1/10W
R329	1-216-031-00	METAL GLAZE	180	5%	1/10W
R330	1-216-031-00	METAL GLAZE	180	5%	1/10W
R331	1-216-031-00	METAL GLAZE	180	5%	1/10W
R332	1-216-182-00	METAL GLAZE	220	5%	1/8W
R333	1-216-033-00	METAL GLAZE	220	5%	1/10W
R335	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R336	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R337	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R338	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R339	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R340	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R341	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R342	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R343	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R344	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R345	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R346	1-216-033-00	METAL GLAZE	220	5%	1/10W
R347	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R348	1-216-001-00	METAL GLAZE	10	5%	1/10W
R349	1-216-001-00	METAL GLAZE	10	5%	1/10W
R350	1-216-184-00	METAL GLAZE	270	5%	1/8W
R351	1-216-184-00	METAL GLAZE	270	5%	1/8W
R352	1-216-070-00	METAL GLAZE	7.5K	5%	1/10W
R353	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R354	1-216-037-00	METAL GLAZE	330	5%	1/10W
R355	1-216-033-00	METAL GLAZE	220	5%	1/10W
R357	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R358	1-216-037-00	METAL GLAZE	330	5%	1/10W
R359	1-216-041-00	METAL GLAZE	470	5%	1/10W
R361	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R362	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R363	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R364	1-216-033-00	METAL GLAZE	220	5%	1/10W
R365	1-216-035-00	METAL GLAZE	270	5%	1/10W
R366	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R367	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R368	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R369	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R370	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R371	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R372	1-216-033-00	METAL GLAZE	220	5%	1/10W
R373	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R374	1-216-033-00	METAL GLAZE	220	5%	1/10W
R375	1-216-043-00	METAL GLAZE	560	5%	1/10W
R376	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R377	1-216-081-00	METAL GLAZE	22K	5%	1/10W

B1

REF.NO.	PART NO.	DESCRIPTION				REMARK
R378	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R379	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R380	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R381	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R382	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R383	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R384	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R385	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R386	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R387	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R388	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R389	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R390	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R391	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R392	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R393	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R394	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R395	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R396	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R397	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R398	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R399	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1303	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1305	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1308	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1309	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1310	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1311	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1312	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1313	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1314	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1315	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1316	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1319	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1320	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R1321	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1322	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1323	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R1324	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1325	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1326	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1327	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1328	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1329	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1330	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1331	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1332	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1333	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1334	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1335	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1336	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1337	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R1338	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1339	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1340	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1341	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1342	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1343	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1344	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1345	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1346	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1347	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1348	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1349	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1350	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1351	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1352	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1353	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1354	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1355	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1356	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1357	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1358	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1359	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1360	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1362	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1363	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1364	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1365	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1366	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1367	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1368	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1369	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1370	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1371	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1372	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1373	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1374	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R1375	1-216-208-00	METAL GLAZE	2.7K	5%	1/8W	
R1376	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R1377	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R1378	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R1379	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R1380	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1381	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1382	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1383	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1384	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1385	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1386	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1387	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1388	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1389	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1390	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1391	1-216-208-00	METAL GLAZE	2.7K	5%	1/8W	
R1392	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1393	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1394	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1395	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1396	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1397	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1398	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1399	1-216-029-00	METAL GLAZE	150	5%	1/10W	

<VARIABLE RESISTOR>

RV301	1-238-012-11	RES, ADJ, CARBON 1K

<CRYSTAL>

X301	1-567-307-11	OSCILLATOR, CRYSTAL
X302	1-567-131-00	OSCILLATOR, CRYSTAL

****

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

F A C

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-638-390-11	F BOARD	
		*******	
	*4-341-752-01	EYELET	
		<CONNECTOR>	
F61	*1-580-690-11	PIN, CONNECTOR (PC BOARD) 4P	
F62	*1-580-690-11	PIN, CONNECTOR (PC BOARD) 4P	
		<FUSE>	
F1601⚠	1-532-504-31	FUSE 4A/250V	
	1-533-230-11	HOLDER, FUSE; F1601	
		<SWITCH>	
S1701⚠	1-571-433-12	SWITCH, PUSH (AC POWER)	
**********			
	A-1632-022-A	A BOARD, COMPLETE	
		**********	
		<CONNECTOR>	
A11	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
A12	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
A13	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P	
A16	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
A17	*1-564-886-11	PLUG, CONNECTOR 9P	
A19	*1-564-881-11	PLUG, CONNECTOR 4P	
		<CAPACITOR>	
C101	1-126-233-11	ELECT 22MF 20% 50V	
C102	1-126-103-11	ELECT 470MF 20% 16V	
C104	1-124-910-11	ELECT 47MF 20% 50V	
C106	1-126-233-11	ELECT 22MF 20% 50V	
C108	1-136-165-00	FILM 0.1MF 5% 50V	
C109	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C111	1-124-925-11	ELECT 2.2MF 20% 50V	
C115	1-124-925-11	ELECT 2.2MF 20% 50V	
C127	1-124-122-11	ELECT 100MF 20% 50V	
C128	1-124-910-11	ELECT 47MF 20% 50V	
C129	1-124-910-11	ELECT 47MF 20% 50V	
C138	1-136-165-00	FILM 0.1MF 5% 50V	
C171	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C172	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C177	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C181	1-101-004-00	CERAMIC 0.01MF 50V	
		<IC>	
IC103	8-759-979-62	IC PCF8574	
		<COIL>	
L100	1-410-683-31	INDUCTOR 560UH	
L101	1-408-225-00	INDUCTOR 3.3UH	
L102	1-408-413-00	INDUCTOR 22UH	
L107	1-408-397-00	INDUCTOR 1UH	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<TRANSISTOR>	
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q116	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q125	8-729-900-89	TRANSISTOR DTC144ES	
Q126	8-729-901-06	TRANSISTOR DTA144EK	
Q181	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
JR230	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR252	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR253	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR255	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR256	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR257	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR258	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R105	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R107	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R108	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R116	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R118	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R128	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R129	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R130	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R157	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R158	1-249-409-11	CARBON 220 5% 1/4W	
R159	1-249-409-11	CARBON 220 5% 1/4W	
R161	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R162	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R163	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R164	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R165	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R167	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R168	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R169	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R181	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R182	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R193	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R194	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R195	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R196	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
		<TUNER>	
TU101⚠	1-465-301-11	TUNER, ET (UV-816(PLL))	
		<IF BLOCK>	
VIF101	1-466-154-11	IF BLOCK (IFG-389S)	
**********			
	*A-1638-013-A	C BOARD, COMPLETE	
		**********	
	*4-379-160-01	COVER (REAR LID), CV	
	*4-379-167-01	COVER (MAIN), CV	

C D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<CONNECTOR>				
C71	*1-506-371-00	PIN, CONNECTOR 2P				
C72	*1-568-881-51	PIN, CONNECTOR 6P				
C81	*1-568-878-51	PIN, CONNECTOR 3P				
C82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
		<CAPACITOR>				
C703	1-102-820-00	CERAMIC	330PF	5%	50V	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	
C705	1-102-980-00	CERAMIC	270PF	5%	50V	
C706	1-102-116-00	CERAMIC	680PF	10%	50V	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	
C709	1-102-116-00	CERAMIC	680PF	10%	50V	
C710	1-123-947-00	ELECT	10MF	20%	250V	
C711	1-101-880-00	CERAMIC	47PF	5%	50V	
C712	1-102-820-00	CERAMIC	330PF	5%	50V	
C714	1-124-360-00	ELECT	1000MF	20%	16V	
C716	1-162-622-11	CERAMIC	330PF	10%	400V	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	
		<DIODE>				
D701	8-719-110-14	DIODE RD9.1ES-B3				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D710	8-719-911-19	DIODE 1SS119				
D711	8-719-300-33	DIODE RU-3AM				
D713	8-719-911-19	DIODE 1SS119				
		<JACK>				
J701	1-526-990-11	SOCKET, PICTURE TUBE				
		<COIL>				
L704	1-410-878-11	INDUCTOR	33UH			
		<TRANSISTOR>				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-906-70	TRANSISTOR BF871				
Q704	8-729-200-17	TRANSISTOR 2SA1091-O				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-906-70	TRANSISTOR BF871				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q709	8-729-906-70	TRANSISTOR BF871				
Q710	8-729-200-17	TRANSISTOR 2SA1091-O				
		<RESISTOR>				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-412-11	CARBON	390	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-465-00	METAL	68K	1%	1/4W	
R711	1-249-426-11	CARBON	5.6K	5%	1/4W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-471-00	METAL	120K	1%	1/4W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/4W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-485-00	METAL	470K	1%	1/4W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702⚠	1-230-619-11	RES, ADJ, METAL GLAZE 110M				
RV703	1-237-749-11	RES, ADJ, CARBON 2200				
RV704	1-237-749-11	RES, ADJ, CARBON 2200				
**********						
	A-1642-032-A	D BOARD, COMPLETE				
		**********				
	4-200-001-01	HOLDER, IC				
	4-201-023-01	SPACER, INSULATING				
	*4-341-751-01	EYELET				
	*4-341-752-01	EYELET				
	*4-368-683-01	SPRING				
		<CAPACITOR>				
C002	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V	
C003	1-124-925-11	ELECT	2.2MF	20%	50V	
C004	1-124-120-11	ELECT	220MF	20%	16V	
C005	1-124-903-11	ELECT	1MF	20%	50V	
C008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C009	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C010	1-124-120-11	ELECT	220MF	20%	16V	
C011	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C013	1-137-098-11	FILM	0.1MF	10%	100V	
C014	1-137-098-11	FILM	0.1MF	10%	100V	
C015	1-124-902-00	ELECT	0.47MF	20%	50V	
C016	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C017	1-137-098-11	FILM	0.1MF	10%	100V	
C018	1-163-127-00	CERAMIC CHIP	270PF	5%	50V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D

REF.NO.	PART NO.	DESCRIPTION			REMARK
C019	1-137-094-11	FILM	0.047MF	10%	100V
C021	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C023	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C024	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C027	1-124-910-11	ELECT	47MF	20%	50V
C030	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C031	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C032	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C033	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C034	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C251	1-124-903-11	ELECT	1MF	20%	50V
C252	1-126-233-11	ELECT	22MF	20%	50V
C253	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C254	1-137-098-11	FILM	0.1MF	10%	100V
C255	1-124-636-00	ELECT	3300MF	20%	25V
C261	1-124-903-11	ELECT	1MF	20%	50V
C262	1-126-233-11	ELECT	22MF	20%	50V
C263	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C264	1-137-098-11	FILM	0.1MF	10%	100V
C265	1-124-564-11	ELECT	4700MF	20%	25V
C270	1-137-035-11	FILM	0.47MF	10%	100V
C274	1-137-035-11	FILM	0.47MF	10%	100V
C501	1-124-927-11	ELECT	4.7MF	20%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V
C503	1-137-049-11	FILM	0.015MF	10%	400V
C504	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V
C506	1-137-102-11	FILM	0.022MF	10%	250V
C507	1-137-033-11	FILM	0.33MF	10%	100V
C508	1-137-102-11	FILM	0.022MF	10%	250V
C509	1-137-098-11	FILM	0.1MF	10%	100V
C510	1-161-959-00	CERAMIC	22PF	10%	500V
C511	1-108-686-11	MYLAR	0.0033MF	10%	100V
C512	1-137-098-11	FILM	0.1MF	10%	100V
C513	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C514	1-137-031-11	FILM	0.22MF	10%	100V
C515	1-124-903-11	ELECT	1MF	20%	50V
C516	1-108-680-11	MYLAR	0.001MF	10%	100V
C517	1-124-252-00	ELECT	0.33MF	20%	50V
C518	1-124-902-00	ELECT	0.47MF	20%	50V
C519	1-136-171-00	FILM	0.33MF	5%	50V
C520	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C521	1-137-098-11	FILM	0.1MF	10%	100V
C522	1-124-122-11	ELECT	100MF	20%	50V
C523	1-108-680-11	MYLAR	0.001MF	10%	100V
C524	1-108-798-11	MYLAR	0.0033MF	5%	50V
C525	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C526	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C527	1-137-098-11	FILM	0.1MF	10%	100V
C531	1-124-190-00	ELECT	680MF	10%	25V
C532	1-124-122-11	ELECT	100MF	20%	50V
C533	1-137-096-11	FILM	0.068MF	10%	100V
C534	1-124-120-11	ELECT	220MF	20%	16V
C536	1-131-365-00	TANTALUM	10MF	10%	16V
C537	1-124-903-11	ELECT	1MF	20%	50V
C538	1-108-680-11	MYLAR	0.001MF	10%	100V
C539	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C540	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C592	1-124-122-11	ELECT	100MF	20%	50V
C593	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C601⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C602⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C603⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C604⚠	1-125-318-11	ELECT(BLOCK)	220MF	20%	400V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C605	1-124-484-11	ELECT	220MF	20%	35V
C606	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C607	1-137-028-11	FILM	1MF	10%	63V
C608	1-124-927-11	ELECT	4.7MF	20%	50V
C611	1-124-910-11	ELECT	47MF	20%	50V
C612	1-108-680-11	MYLAR	0.001MF	10%	100V
C613	1-136-539-11	FILM	0.0022MF	3%	2KV
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-128-142-11	ELECT	1500MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-124-122-11	ELECT	100MF	20%	50V
C618	1-162-115-00	CERAMIC	330PF	10%	2KV
C619	1-128-320-11	ELECT	2200MF	20%	16V
C620	1-136-173-00	FILM	0.47MF	5%	50V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-128-320-11	ELECT	2200MF	20%	16V
C623	1-124-910-11	ELECT	47MF	20%	50V
C624	1-124-122-11	ELECT	100MF	20%	50V
C625	1-124-360-00	ELECT	1000MF	20%	16V
C626	1-124-907-11	ELECT	10MF	20%	50V
C627	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C631	1-124-927-11	ELECT	4.7MF	20%	50V
C632	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C633	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C801	1-126-105-11	ELECT	1000MF	20%	35V
C802	1-102-030-00	CERAMIC	330PF	10%	500V
C804	1-123-948-00	ELECT	22MF	20%	250V
C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C806	1-137-098-11	FILM	0.1MF	10%	100V
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	1-123-024-21	ELECT	33MF		160V
C811	1-136-113-00	FILM	2MF	5%	200V
C812	1-124-634-11	ELECT	1MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814⚠	1-161-731-51	CERAMIC	0.001MF	10%	2KV
C815	1-136-540-11	FILM	0.82MF	5%	200V
C817⚠	1-136-591-11	FILM	0.017MF	3%	1.4KV
C818⚠	1-129-721-51	FILM	0.039MF	10%	630V
C819⚠	1-161-731-51	CERAMIC	0.001MF	10%	2KV
C820	1-137-046-11	FILM	0.0082MF	10%	400V
C821⚠	1-162-134-51	CERAMIC	470PF	10%	2KV
C822	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C823	1-137-043-11	FILM	0.0047MF	10%	400V
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C825	1-137-102-11	FILM	0.022MF	10%	250V
C1601⚠	1-136-518-11	FILM	0.33MF	20%	300V
C1602⚠	1-136-519-11	FILM	0.47MF	20%	300V
C1603⚠	1-164-246-51	CERAMIC	0.0022MF	20%	400V
C1605⚠	1-164-246-51	CERAMIC	0.0022MF	20%	400V
C1607⚠	1-161-964-61	CERAMIC	0.0047MF		250V

<FILTER>

CF001	1-577-364-11	VIBRATOR, CERAMIC
CF501	1-567-888-11	OSCILLATOR, CERAMIC

<CONNECTOR>

D1	*1-568-881-51	PIN, CONNECTOR 6P
D2	*1-568-882-51	PIN, CONNECTOR 7P
D11	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D12	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D21	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
D22	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
D31	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
D32	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
D33	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
D41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
D44	*1-568-881-51	PIN, CONNECTOR 6P	
D45	*1-568-881-51	PIN, CONNECTOR 6P	
D51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
D62	*1-565-395-11	PIN, CONNECTOR 3P	
D65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
D66	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
D82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
D83	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
D84	*1-568-536-11	PLUG (MINIATURE DY) 6P	
D88	*1-568-878-51	PIN, CONNECTOR 3P	
D801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
		<DIODE>	
D003	8-719-911-19	DIODE 1SS119	
D005	8-719-109-89	DIODE RD5.6ES-B2	
D006	8-719-982-24	DIODE MTZJ-33A	
D007	8-719-982-08	DIODE MTZJ-3.9B	
D009	8-719-109-89	DIODE RD5.6ES-B2	
D010	8-719-921-54	DIODE MTZJ-6.2B	
D011	8-719-921-54	DIODE MTZJ-6.2B	
D012	8-719-911-19	DIODE 1SS119	
D013	8-719-109-97	DIODE RD6.8ES-B2	
D271	8-719-921-88	DIODE MTZJ-13B	
D272	8-719-911-19	DIODE 1SS119	
D501	8-719-911-19	DIODE 1SS119	
D504	8-719-911-55	DIODE U05G	
D508	8-719-911-19	DIODE 1SS119	
D509	8-719-911-19	DIODE 1SS119	
D511	8-719-911-55	DIODE U05G	
D512	8-719-911-55	DIODE U05G	
D513	8-719-010-34	DIODE UZ-4.7BSC	
D514	8-719-911-19	DIODE 1SS119	
D515	8-719-911-19	DIODE 1SS119	
D601 ⚠	8-719-510-63	DIODE D4SB60L-F	
D602	8-719-300-33	DIODE RU-3AM	
D603	8-719-911-55	DIODE U05G	
D604	8-719-911-55	DIODE U05G	
D605	8-719-911-55	DIODE U05G	
D606	8-719-300-33	DIODE RU-3AM	
D607	8-719-300-33	DIODE RU-3AM	
D608	8-719-300-33	DIODE RU-3AM	
D609	8-719-982-24	DIODE MTZJ-33A	
D610	8-719-300-59	DIODE CTU-12S	
D611	8-719-900-26	DIODE ERD29-08J	
D612	8-719-300-59	DIODE CTU-12S	
D613	8-719-979-85	DIODE EGP20G	
D614	8-719-979-85	DIODE EGP20G	
D616	8-719-921-54	DIODE MTZJ-6.2B	
D617	8-719-911-19	DIODE 1SS119	
D618	8-719-109-89	DIODE RD5.6ES-B2	
D619	8-719-982-24	DIODE MTZJ-33A	
D620	8-719-800-76	DIODE 1SS226	
D621	8-719-982-24	DIODE MTZJ-33A	
D622	8-719-911-19	DIODE 1SS119	
D623	8-719-911-19	DIODE 1SS119	
D624	8-719-911-19	DIODE 1SS119	
D630	8-719-921-91	DIODE MTZJ-15A	
D801	8-719-300-33	DIODE RU-3AM	
D802	8-719-300-33	DIODE RU-3AM	
D803	8-719-976-64	DIODE RGP02-17	
D804	8-719-911-55	DIODE U05G	
D805	8-719-911-55	DIODE U05G	
D806	8-719-945-80	DIODE ERC06-15S	
D807	8-719-945-80	DIODE ERC06-15S	
D808	8-719-900-26	DIODE ERD29-08J	
		<IC>	
IC001	8-759-515-80	IC SDA20560-A008	
IC002	8-759-000-47	IC MC14051BCP	
IC003	8-759-945-58	IC RC4558P	
IC005	8-759-748-56	IC SDA2546	
IC251	8-759-988-94	IC TDA2050	
	4-812-134-00	RIVET NYLON, 3.5; IC251	
IC261	8-759-988-94	IC TDA2050	
	4-812-134-00	RIVET NYLON, 3.5; IC261	
IC501	8-759-970-73	IC TEA2028B	
IC502	8-759-944-57	IC TDA8170	
IC601	8-759-988-95	IC TEA2260	
IC604	8-759-510-52	IC TEA7605	
IC608	8-759-929-62	IC LM7812CT	
		<COIL>	
L501	1-408-225-00	INDUCTOR 3.3UH	
L601	*1-420-872-00	COIL, AIR CORE	
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-671-31	INDUCTOR 47UH	
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
L606	1-421-013-00	COIL (HORIZONTAL CHOKE) 25UH	
L607	1-410-671-31	INDUCTOR 47UH	
L801	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	
L803	1-459-104-00	COIL, DUST CORE	
L804	1-408-239-00	INDUCTOR 4.7MMH	
L805 ⚠	1-459-907-22	COIL, HORIZONTAL LINEARITY	
L806	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	
L809	*1-420-872-00	COIL, AIR CORE	
L810 ⚠	1-421-794-21	TRANSFORMER, FERRITE (PMT)	
		<TRANSFORMER>	
LF1601 ⚠	1-421-866-12	LFT	
LF1602 ⚠	1-421-776-21	LFT	
LF1603 ⚠	1-421-862-11	LFT	
T601 ⚠	1-450-037-11	S.R.T	
T602 ⚠	1-424-277-11	TRANSFORMER, TRIGGER PULSE	
T801 ⚠	1-437-090-21	HDT	
T802 ⚠	1-439-416-51	TRANSFORMER ASSY, FLYBACK (UX-1650)	
		<IC LINK>	
PS601 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS602 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS603 ⚠	1-532-679-91	LINK, IC (ICP-N15) 0.6A	
PS604 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
		<TRANSISTOR>	
Q001	8-729-901-01	TRANSISTOR DTC144EK	
Q002	8-729-901-01	TRANSISTOR DTC144EK	

D

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q005	8-729-901-01	TRANSISTOR DTC144EK	
Q006	8-729-901-01	TRANSISTOR DTC144EK	
Q007	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q008	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q009	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q010	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q251	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q261	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q271	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
Q505	8-729-140-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-216-22	TRANSISTOR 2SA1162-G	
Q598	8-729-216-22	TRANSISTOR 2SA1162-G	
Q601	8-729-122-03	TRANSISTOR 2SA1220A-P	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
Q603	8-729-122-03	TRANSISTOR 2SA1220A-P	
Q604	8-729-216-22	TRANSISTOR 2SA1162-G	
Q605	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q606	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
Q608	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q609	8-729-320-62	TRANSISTOR 2SD789-34	
Q801	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	

<RESISTOR>

JR1	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR7	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R001	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R002	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R003	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R004	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R005	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R006	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R007	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R008	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R009	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R010	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R012	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R013	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R014	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R015	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R016	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R017	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R018	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R019	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R020	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R021	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R022	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R024	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R025	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R026	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R027	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R028	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R029	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R030	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R031	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R032	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R033	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R034	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R035	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R036	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R037	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R038	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R039	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R040	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R042	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R043	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R044	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R045	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R046	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R047	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R048	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R049	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R050	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R051	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R052	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R053	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R054	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R055	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R056	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R057	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R058	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R059	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R060	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R061	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R062	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R063	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R064	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R065	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R066	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R067	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R068	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R069	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R070	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R071	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R072	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R073	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R075	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R076	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R078	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R079	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R080	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R081	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R083	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R084	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R085	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R086	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R087	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R088	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R093	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R094	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R095	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R096	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R098	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R251	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R252	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R254	1-216-357-00	METAL OXIDE	4.7	5%	1W	F

D

REF.NO.	PART NO.	DESCRIPTION				REMARK
R255	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R256	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R257	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R258	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R259	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R261	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R262	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R263	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R264	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R265	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R266	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R267	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R268	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R269	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R270	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R271	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R272	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R273	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R274	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R500	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R501	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R502	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R503	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R504	1-249-420-11	CARBON	1.8K	5%	1/4W	
R505	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R506	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R509	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R514	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R515	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R517	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R518	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R519	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R520	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R521	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R522	1-215-469-00	METAL	100K	1%	1/4W	
R523	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R524	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R528	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R529	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R531	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R532	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R533	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R534	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R535	1-249-749-00	CARBON	2.2M	5%	1/4W	
R536	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R537	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R538	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R539	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R540	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R541	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R542	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R546	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R547	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R548	1-216-349-00	METAL OXIDE	1	5%	1W	F
R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R550	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R551	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R553	1-215-869-11	METAL OXIDE	1K	5%	1W	
R554	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R555	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R556	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R557	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R558	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R559	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R560	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R561	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R570	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R591	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R592	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R593	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R594	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R597	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R598	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R600	1-249-381-11	CARBON	1	5%	1/4W	
R601	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R603	1-216-469-11	METAL OXIDE	12	5%	3W	F
R604	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R605	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R606	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R607	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R608	1-216-488-11	METAL OXIDE	18K	5%	3W	F
R609	1-216-007-00	METAL GLAZE	18	5%	1/10W	
R610	1-244-941-00	CARBON	680K	5%	1/2W	
R611	1-216-015-00	METAL GLAZE	39	5%	1/10W	
R612	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R613	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R614	1-205-758-11	WIREWOUND	100	10%	10W	F
R616	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R617	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R618	1-216-431-11	METAL OXIDE	560	5%	1W	F
R619	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R620	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R621	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R622	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R623	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R624	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R625	1-215-865-11	METAL OXIDE	220	5%	1W	F
R626	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R628	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R629	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R633	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R634	1-216-430-11	METAL OXIDE	390	5%	1W	F
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R643	1-217-189-21	WIREWOUND	0.12	5%	2W	F
R651	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R653	1-205-758-11	WIREWOUND	100	10%	10W	F
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R807	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-215-882-00	METAL OXIDE	22	5%	2W	F
R812	1-247-281-00	CARBON	51K	5%	1/2W	
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	F
R817	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D **VM** **V**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R822⚠	1-217-778-61	FUSIBLE	1K	5%	1W	F
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R827	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R828	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R829	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R1601⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1602⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R1603⚠	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R1604⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1605⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	
R5501	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5503	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R5504	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R5505	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R5506	1-216-075-00	METAL GLAZE	12K	5%	1/10W	

<VARIABLE RESISTOR>

RV501	1-238-013-11	RES, ADJ, CARBON	2.2K
RV502	1-238-016-11	RES, ADJ, CARBON	10K
RV601	1-238-011-11	RES, ADJ, CARBON	470

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK

<THERMISTOR>

THP601⚠	1-808-059-32	THERMISTOR, POSITIVE

****

*1-634-193-11 VM BOARD
****

<CAPACITOR>

C751	1-101-361-00	CERAMIC	150PF	5%	50V
C752	1-108-629-11	MYLAR	0.018MF	10%	100V
C753	1-137-047-11	FILM	0.01MF	10%	400V
C754	1-102-980-00	CERAMIC	270PF	5%	50V
C757	1-108-692-11	MYLAR	0.01MF	10%	200V
C759	1-124-907-11	ELECT	10MF	20%	50V
C760	1-124-917-11	ELECT	33MF	20%	50V
C761	1-101-006-00	CERAMIC	0.047MF		50V
C762	1-137-047-11	FILM	0.01MF	10%	400V

<COIL>

L751	1-408-413-00	INDUCTOR	22UH
L770	1-410-665-31	INDUCTOR	15UH

<TRANSISTOR>

Q751	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q753	8-729-140-97	TRANSISTOR 2SB734-34
Q754	8-729-140-96	TRANSISTOR 2SD774-34

<RESISTOR>

R751	1-249-418-11	CARBON	1.2K	5%	1/4W
R752	1-249-426-11	CARBON	5.6K	5%	1/4W
R753	1-249-414-11	CARBON	560	5%	1/4W
R754	1-249-434-11	CARBON	27K	5%	1/4W
R755	1-249-405-11	CARBON	100	5%	1/4W
R756	1-249-419-11	CARBON	1.5K	5%	1/4W
R757	1-249-405-11	CARBON	100	5%	1/4W
R758	1-249-409-11	CARBON	220	5%	1/4W
R760	1-249-411-11	CARBON	330	5%	1/4W
R761	1-249-429-11	CARBON	10K	5%	1/4W
R762	1-247-895-00	CARBON	470K	5%	1/4W
R763	1-249-429-11	CARBON	10K	5%	1/4W
R764	1-249-455-11	CARBON	4.7	5%	1/4W F
R765	1-249-455-11	CARBON	4.7	5%	1/4W F
R766	1-247-753-11	CARBON	1.2K	5%	1/2W
R767	1-247-751-11	CARBON	820	5%	1/2W
R768	1-215-887-00	METAL OXIDE	150	5%	2W F
R769⚠	1-212-889-51	FUSIBLE	220	5%	1/4W F

<CONNECTOR>

VM73	*1-568-878-51	PIN, CONNECTOR 3P
VM88	*1-568-878-51	PIN, CONNECTOR 3P

****

A-1645-013-A V BOARD, COMPLETE
****

<CAPACITOR>

C1	1-126-101-11	ELECT	100MF	20%	16V
C2	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3	1-124-120-11	ELECT	220MF	20%	16V
C4	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C5	1-124-120-11	ELECT	220MF	20%	16V
C6	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C10	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C11	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C12	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C13	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C14	1-124-927-11	ELECT	4.7MF	20%	50V
C15	1-124-927-11	ELECT	4.7MF	20%	50V
C16	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C17	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C18	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C26	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C27	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C29	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C32	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C33	1-163-038-00	CERAMIC CHIP	0.1MF		25V

<CONNECTOR>

CNV1	*1-565-393-11	CONNECTOR, BOARD TO BOARD
CNV2	*1-565-393-11	CONNECTOR, BOARD TO BOARD

<DIODE>

D1	8-719-105-91	DIODE RD5.6M-B2
D3	8-719-914-44	DIODE DAP202K
D4	8-719-400-18	DIODE MA152WK
D5	8-719-914-44	DIODE DAP202K
D6	8-719-400-18	DIODE MA152WK
D7	8-719-105-52	DIODE RD3.6M-B2

V **H1**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
D9	8-719-106-17	DIODE RD6.8M-B2				
		<IC>				
IC1	8-759-039-18	IC SDA20162-B002				
IC2	8-759-510-46	IC SAA5246P/E				
IC3	8-759-510-49	IC FCB61C65L-70P				
		<COIL>				
L1	1-408-403-00	INDUCTOR	3.3UH			
L2	1-408-407-00	INDUCTOR	6.8UH			
L3	1-408-407-00	INDUCTOR	6.8UH			
L4	1-408-407-00	INDUCTOR	6.8UH			
		<IC LINK>				
PS1 ⚠	1-532-679-91	LINK, IC (ICP-N15) 0.6A				
		<TRANSISTOR>				
Q1	8-729-900-53	TRANSISTOR DTC114EK				
Q2	8-729-920-92	TRANSISTOR 2SD2096-EF				
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q5	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q6	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q7	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
JR01	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR02	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR03	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR08	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR09	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR18	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR19	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR20	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR26	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR201	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR204	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR207	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR208	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR211	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR213	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR219	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR220	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR223	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R4	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R5	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R7	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R8	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R9	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R02	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R10	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R11	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R12	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R15	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R16	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R17	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R18	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R19	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R20	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R21	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R22	1-216-168-00	METAL GLAZE	56	5%	1/8W	
R23	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R24	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R25	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R26	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R27	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R28	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R34	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R35	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R42	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R44	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R46	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R47	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R49	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R50	1-216-296-00	METAL GLAZE	0	5%	1/8W	
		<VARIABLE RESISTOR>				
RV1	1-238-012-11	RES, ADJ, CARBON 1K				
		<CRYSTAL>				
X1	1-579-266-21	CRYSTAL VIBRATOR				
X2	1-577-364-11	VIBRATOR, CERAMIC				

****

	*1-638-391-11	H1 BOARD
		********
		<CONNECTOR>
H1-1	*1-568-881-51	PIN, CONNECTOR 6P
H1-02	1-568-678-11	TERMINAL BLOCK, S 3P
H1-4	*1-568-879-51	PIN, CONNECTOR 4P
H1-05	1-562-837-11	JACK
H1-23	*1-568-879-51	PIN, CONNECTOR 4P
H1-43	*1-564-512-11	PLUG, CONNECTOR 9P
		<RESISTOR>
R1651	1-249-413-11	CARBON 470 5% 1/4W
R1652	1-249-413-11	CARBON 470 5% 1/4W
		<SWITCH>
S1651	1-571-532-21	SWITCH, TACTIL
S1652	1-571-532-21	SWITCH, TACTIL

REF.NO.	PART NO.	DESCRIPTION			REMARK
S1653	1-571-532-21	SWITCH, TACTIL			
**********					
	*1-638-392-11	H2 BOARD			
		********			
	*4-374-987-01	GUIDE, LIGHT			
	*4-381-686-01	BRACKET (B), LIGHT GUIDE			
		<DIODE>			
D1651	8-719-948-31	DIODE LD-201VR			
	*4-201-076-01	HOLDER, LED; D1651			
D1652	8-719-948-31	DIODE LD-201VR			
	*4-201-076-01	HOLDER, LED; D1652			
D1654	8-719-948-31	DIODE LD-201VR			
	*4-201-076-01	HOLDER, LED; D1654			
		<CONNECTOR>			
H2-2	*1-568-882-51	PIN, CONNECTOR 7P			
		<IC>			
IC1651	8-741-101-75	IC SBX1610-11			
		<RESISTOR>			
R1662	1-249-413-11	CARBON	470	5% 1/4W	
**********					
	*1-638-393-11	J2 BOARD			
		********			
		<CAPACITOR>			
C1751	1-101-005-00	CERAMIC	0.022MF		50V
C1752	1-101-005-00	CERAMIC	0.022MF		50V
		<CONNECTOR>			
J2-1	1-537-339-11	TERMINAL BOARD			
J2-4	*1-564-519-11	PLUG, CONNECTOR 4P			
J2-6	*1-560-278-21	PLUG, CONNECTOR 4P			
		<COIL>			
L1751	1-412-240-11	INDUCTOR, WIDE BAND			
L1752	1-412-240-11	INDUCTOR, WIDE BAND			
**********					
	A-1651-020-A	J1 BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C203	1-124-925-11	ELECT	2.2MF	20%	50V
C205	1-124-927-11	ELECT	4.7MF	20%	50V
C206	1-124-925-11	ELECT	2.2MF	20%	50V
C207	1-124-927-11	ELECT	4.7MF	20%	50V
C213	1-126-233-11	ELECT	22MF	20%	50V
C214	1-137-045-11	FILM	0.0068MF	10%	400V
C217	1-137-045-11	FILM	0.0068MF	10%	400V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C218	1-137-102-11	FILM	0.022MF	10%	250V
C219	1-137-102-11	FILM	0.022MF	10%	250V
C220	1-108-686-11	MYLAR	0.0033MF	10%	100V
C221	1-108-686-11	MYLAR	0.0033MF	10%	100V
C222	1-137-095-11	FILM	0.056MF	10%	100V
C223	1-137-095-11	FILM	0.056MF	10%	100V
C224	1-137-047-11	FILM	0.01MF	10%	400V
C225	1-136-173-00	FILM	0.47MF	5%	50V
C226	1-136-173-00	FILM	0.47MF	5%	50V
C227	1-137-102-11	FILM	0.022MF	10%	250V
C228	1-137-104-11	FILM	0.033MF	10%	250V
C229	1-137-049-11	FILM	0.015MF	10%	400V
C230	1-137-049-11	FILM	0.015MF	10%	400V
C231	1-124-902-00	ELECT	0.47MF	20%	50V
C232	1-124-907-11	ELECT	1MF	20%	50V
C233	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C234	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C235	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C236	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C237	1-124-902-00	ELECT	0.47MF	20%	50V
C238	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C239	1-126-103-11	ELECT	470MF	20%	16V
C240	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C241	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C242	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C243	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C244	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C245	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C1401	1-124-907-11	ELECT	1MF	20%	50V
C1402	1-126-103-11	ELECT	470MF	20%	16V
C1403	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1404	1-124-902-00	ELECT	0.47MF	20%	50V
C1405	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1406	1-124-902-00	ELECT	0.47MF	20%	50V
C1407	1-124-910-11	ELECT	47MF	20%	50V
C1408	1-124-122-11	ELECT	100MF	20%	50V
C1409	1-126-233-11	ELECT	22MF	20%	50V
C1410	1-124-907-11	ELECT	1MF	20%	50V
C1411	1-124-907-11	ELECT	1MF	20%	50V
C1412	1-124-910-11	ELECT	47MF	20%	50V
C1413	1-124-910-11	ELECT	47MF	20%	50V
C1414	1-124-907-11	ELECT	1MF	20%	50V
C1415	1-124-902-00	ELECT	0.47MF	20%	50V
C1416	1-124-902-00	ELECT	0.47MF	20%	50V
C1417	1-124-120-11	ELECT	220MF	20%	16V
C1418	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1419	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1425	1-124-902-00	ELECT	0.47MF	20%	50V
C1426	1-124-902-00	ELECT	0.47MF	20%	50V
C1427	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1428	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1429	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1430	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1431	1-126-529-11	ELECT	0.47MF	20%	50V
C1432	1-124-902-00	ELECT	0.47MF	20%	50V
C1433	1-124-122-11	ELECT	100MF	20%	50V
C1436	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1437	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1438	1-137-047-11	FILM	0.01MF	10%	400V
C1439	1-137-047-11	FILM	0.01MF	10%	400V
C1440	1-124-907-11	ELECT	1MF	20%	50V
C1441	1-124-907-11	ELECT	1MF	20%	50V
C1442	1-124-902-00	ELECT	0.47MF	20%	50V

J1

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1443	1-124-902-00	ELECT	0.47MF	20%	50V	
C1444	1-124-910-11	ELECT	47MF	20%	50V	
C1445	1-102-824-00	CERAMIC	470PF	5%	50V	
C1446	1-102-824-00	CERAMIC	470PF	5%	50V	
C1501	1-124-927-11	ELECT	4.7MF	20%	50V	
C1502	1-124-903-11	ELECT	1MF	20%	50V	
C1503	1-108-680-11	MYLAR	0.001MF	10%	100V	
C1504	1-124-910-11	ELECT	47MF	20%	50V	
C1505	1-137-094-11	FILM	0.047MF	10%	100V	
C1507	1-108-686-11	MYLAR	0.0033MF	10%	100V	
C1508	1-124-903-11	ELECT	1MF	20%	50V	
C1509	1-124-903-11	ELECT	1MF	20%	50V	
C1511	1-124-927-11	ELECT	4.7MF	20%	50V	
C1513	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
		<CONNECTOR>				
CN1401	1-565-838-11	JACK BLOCK, PIN 2P				
J1-41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P				
J1-43	*1-564-524-11	PLUG, CONNECTOR 9P				
J1-44	*1-564-527-11	PLUG, CONNECTOR 12P				
J1-51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P				
		<DIODE>				
D201	8-719-110-14	DIODE RD9.1ES-B3				
D202	8-719-110-14	DIODE RD9.1ES-B3				
D205	8-719-110-03	DIODE RD7.5ES-B2				
D206	8-719-110-03	DIODE RD7.5ES-B2				
D1401	8-719-110-03	DIODE RD7.5ES-B2				
D1403	8-719-110-03	DIODE RD7.5ES-B2				
D1404	8-719-110-03	DIODE RD7.5ES-B2				
D1405	8-719-110-03	DIODE RD7.5ES-B2				
D1406	8-719-110-03	DIODE RD7.5ES-B2				
D1407	8-719-921-77	DIODE MTZN-10C				
D1408	8-719-110-14	DIODE RD9.1ES-B3				
D1409	8-719-110-14	DIODE RD9.1ES-B3				
D1410	8-719-110-14	DIODE RD9.1ES-B3				
D1415	8-719-110-03	DIODE RD7.5ES-B2				
D1418	8-719-110-03	DIODE RD7.5ES-B2				
D1419	8-719-110-03	DIODE RD7.5ES-B2				
D1420	8-719-110-03	DIODE RD7.5ES-B2				
D1421	8-719-110-03	DIODE RD7.5ES-B2				
D1422	8-719-110-03	DIODE RD7.5ES-B2				
D1423	8-719-110-03	DIODE RD7.5ES-B2				
D1424	8-719-110-03	DIODE RD7.5ES-B2				
D1425	8-719-110-03	DIODE RD7.5ES-B2				
D1426	8-719-110-03	DIODE RD7.5ES-B2				
D1501	8-719-300-33	DIODE RU-3AM				
D1502	8-719-911-19	DIODE 1SS119				
D1503	8-719-911-19	DIODE 1SS119				
D1504	8-719-911-19	DIODE 1SS119				
D1505	8-719-911-19	DIODE 1SS119				
D1506	8-719-982-33	DIODE MTZJ-36D				
D1507	8-719-911-19	DIODE 1SS119				
D1510	8-719-911-19	DIODE 1SS119				
		<IC>				
IC201	8-759-013-17	IC TDA6200				
IC1401	8-752-053-17	IC CXA1114P				
IC1402	8-759-946-32	IC TEA2014A				
IC1403	8-759-140-53	IC UPD4053BC				
IC1501	8-759-942-16	IC TEA2031A				

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<JACK>				
J1402	1-561-534-41	SOCKET 21P				
J1403	1-561-534-41	SOCKET 21P				
		<TRANSISTOR>				
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1401	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1402	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1403	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G				
		<RESISTOR>				
R201	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R202	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W	
R203	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R204	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R205	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R206	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R208	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R209	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R210	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R212	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R213	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R214	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R215	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R216	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R217	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R218	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R219	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R220	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R221	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R222	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R223	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R228	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R229	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R230	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R233	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R234	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R235	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R236	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R241	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R242	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R243	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R244	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R245	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R246	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R247	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R248	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R249	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R250	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

J1 IFG

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1400	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1401	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1402	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1403	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1404	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1405	1-249-434-11	CARBON	27K	5%	1/4W	
R1407	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1408	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1409	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1413	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1414	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1415	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1416	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1417	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1419	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1420	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1421	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1422	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1423	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1424	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1425	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1427	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1428	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1429	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1430	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1431	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1432	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1433	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1434	1-249-393-11	CARBON	10	5%	1/4W	F
R1437	1-249-434-11	CARBON	27K	5%	1/4W	
R1440	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1441	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1442	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1443	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1444	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1445	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1446	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1448	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1449	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1452	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1453	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1454	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1455	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1457	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1459	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1460	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1461	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1462	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1463	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1464	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1465	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1466	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1467	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1468	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1470	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1471	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1472	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1473	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1474	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1476	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1477	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1478	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1480	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1482	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1483	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1484	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1487	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1488	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1489	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1501	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1502	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1503	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1504	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1509	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1511	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1512	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1513	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1516	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1517	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1519	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1520	1-216-111-00	METAL GLAZE	390K	5%	1/10W	
R1521	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R1550	1-216-349-00	METAL OXIDE	1	5%	1W	F
R1556	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON 470K
RV1502	1-238-016-11	RES, ADJ, CARBON 10K
RV1503	1-238-017-11	RES, ADJ, CARBON 22K
RV1504	1-238-012-11	RES, ADJ, CARBON 1K
RV1505	1-238-023-11	RES, ADJ, CARBON 470K
RV1506	1-238-017-11	RES, ADJ, CARBON 22K
RV1507	1-238-009-11	RES, ADJ, CARBON 220
RV1508	1-238-016-11	RES, ADJ, CARBON 10K
RV1509	1-238-023-11	RES, ADJ, CARBON 470K

****

A-1654-004-A IFG BOARD, COMPLETE

****

<CAPACITOR>

C1	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C2	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C3	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C4	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C5	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C6	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C7	1-124-903-11	ELECT	1MF	20%	50V
C8	1-124-907-11	ELECT	10MF	20%	50V
C9	1-130-471-00	MYLAR	0.001MF	5%	50V
C10	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C11	1-163-119-00	CERAMIC CHIP	120PF	5%	50V

IFG

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
C12	1-136-298-00	FILM	0.0033MF	2%	100V	
C13	1-124-477-11	ELECT	47MF	20%	16V	
C14	1-124-477-11	ELECT	47MF	20%	16V	
C15	1-124-477-11	ELECT	47MF	20%	16V	
C16	1-124-477-11	ELECT	47MF	20%	16V	
C17	1-124-907-11	ELECT	10MF	20%	50V	
C18	1-137-047-11	FILM	0.01MF	10%	400V	
C19	1-137-047-11	FILM	0.01MF	10%	400V	
C20	1-126-233-11	ELECT	22MF	20%	50V	
C21	1-126-233-11	ELECT	22MF	20%	50V	
C22	1-137-098-11	FILM	0.1MF	10%	100V	
C23	1-137-031-11	FILM	0.22MF	10%	100V	
C24	1-124-034-51	ELECT	33MF	20%	16V	
C25	1-137-102-11	FILM	0.022MF	10%	250V	
C26	1-137-094-11	FILM	0.047MF	10%	100V	
C27	1-124-903-11	ELECT	1MF	20%	50V	
C28	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C29	1-124-903-11	ELECT	1MF	20%	50V	
C30	1-124-903-11	ELECT	1MF	20%	50V	
C31	1-137-047-11	FILM	0.01MF	10%	400V	
C32	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C33	1-163-081-00	CERAMIC CHIP	0.22MF		25V	
C34	1-137-031-11	FILM	0.22MF	10%	100V	
C35	1-124-907-11	ELECT	10MF	20%	50V	
C36	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C37	1-124-477-11	ELECT	47MF	20%	16V	
C38	1-124-477-11	ELECT	47MF	20%	16V	
C39	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
		<FILTER>				
CDA1	1-404-751-11	DISCRIMINATOR, CERAMIC				
CDA2	1-404-750-11	DISCRIMINATOR, CERAMIC				
SFT1	1-527-840-00	FILTER, CERAMIC				
SFT2	1-527-839-00	FILTER, CERAMIC				
		<DIODE>				
D3	8-719-400-18	DIODE MA152WK				
		<IC>				
IC1	8-759-003-90	IC TBA129				
IC2	8-759-003-90	IC TBA129				
IC3	8-759-030-48	IC TDA6600-2				
IC4	8-759-513-48	IC TDA2595/V9				
		<CONNECTOR>				
IFG13	*1-565-488-11	CONNECTOR, BOARD TO BOARD 12P				
		<COIL>				
L1	1-408-410-00	INDUCTOR	12UH			
L2	1-408-410-00	INDUCTOR	12UH			
L3	1-410-064-11	INDUCTOR	2.7MMH			
L4	1-408-421-00	INDUCTOR	100UH			
L5	1-408-421-00	INDUCTOR	100UH			
		<TRANSISTOR>				
Q2	8-729-901-00	TRANSISTOR DTC124EK				
Q3	8-729-216-22	TRANSISTOR 2SA1162-G				
Q4	8-729-901-00	TRANSISTOR DTC124EK				

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<RESISTOR>				
JR8	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR10	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R1	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R2	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R5	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R6	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R7	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R11	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R13	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R15	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R16	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R17	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R18	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R19	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R20	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R22	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R24	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R25	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV1	1-238-016-11	RES, ADJ, CARBON 10K				
RV2	1-238-019-11	RES, ADJ, CARBON 47K				

****

MISCELLANEOUS
****

⚠	1-426-398-11	COIL, DEMAGNETIZATION
⚠	1-451-313-21	DEFLECTION YOKE (Y29FXA)
	1-452-032-00	MAGNET, DISK; 10MM φ
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ
⚠	1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)
	1-544-475-11	SPEAKER
⚠	1-590-501-11	CORD, POWER(WITH NOISE FILTER)
V901 ⚠	8-733-823-05	PICTURE TUBE (A68JYK60X)

****

ACCESSORIES AND PACKING MATERIALS
****

PART NO.	DESCRIPTION	REMARK
4-200-599-11	MANUAL, INSTRUCTION (GERMAN/ENGLISH/FRENCH/ITALIAN/DUTCH/PORTUGUESE)	
*4-031-996-01	CUSHION (UPPER) (ASSY)	
*4-031-997-01	CUSHION (LOWER) (ASSY)	
*4-031-998-01	INDIVIDUAL CARTON	
4-384-027-01	BAG, PROTECTION	

REMOTE COMMANDER

1-465-796-21	CONTROL UNIT, REMOTE (RM-816)	
4-031-670-01	COVER, POCKET (FOR RM-816)	